

WEDNESDAY, FEBRUARY 1, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE USE OF GALLIC AND TANNIC ACID IN ALBUMINURIA WITH HYPERSECRETION, AND OF BELLADONNA IN CHRONIC TUBULAR NEPHRITIS.

BY H. C. WOOD, JR., M.D.,

One of the Physicians to the Philadelphia Hospital.

J. M., æt. 40, white, of sanguine temperament, English. Has been mostly temperate. Had chancre some nine years since, but with no secondary manifestations at all, until two years ago, when, after a spell of hard drinking, he had ulcers on his legs. He never had malarial disease. Previous to September, 1869, had been living as an overseer on plantations in swampy malarial districts of Georgia and Virginia. He was in wretched health from this period to Christmas, 1869, when he took to bed. He passed during this time an abnormal quantity of water. About Christmas he had severe diarrhoea. He was in bed, much swollen about legs and face, with excessive thirst, and passing large quantities of urine. About the middle of January, 1870, he went to New Orleans Hospital, where he was exceedingly dropsical from head to foot, with a hard swelling in the hepatic region. He finally recovered sufficiently to come North, but was all the time troubled off and on with diarrhoea, and continuously with excessive urination. On the 18th of August he was forced to enter the Philadelphia Hospital, by a recurrence of dropsy. His condition at the present time (September 16) is as follows: The countenance is very pale. There is very marked general oedema, with, however, no distinct ascites. The liver is exceedingly enlarged, reaching nearly to the pelvis; its surface is smooth and hard, with a thick rounded edge. He has no fever at any time. The urine is passed in large quantities, and is highly albuminous. No tube-casts can be found in it.

The condition from which the patient is suffering is probably albuminoid disease of liver and kidneys.

The points upon which the diagnosis rests are the conjoint affection of the two organs, the simple enlargement of the liver, with a smooth, firm surface and thick edge, the absence of any hepatic symptoms, such as jaundice, ascites, or tenderness, and the large amount of urine passed, with the universal dropsy which has been present. The only circumstance which throws any doubt on the diagnosis is the absence of any previous suppurative discharge or other dyscrasia, unless indeed the man has really had constitutional syphilis, which, however, is somewhat uncertain.

After having thus made out our diagnosis, the next point claiming attention is the treatment. In approaching this we should be as systematic and as logical as in investigating the pathology of the case, questioning ourselves, not what are the drugs to be used, but what are the objects to be sought after. In this instance we have a progressive, destructive metamorphosis of tissue to deal with,—one which, if it pursue its course, will of necessity eventuate in the death of the subject. The first and prime indication for treatment is evidently, then, to arrest, if possible, such tissue-changes, and to restore structures already diseased. Have we in our power any means of effecting the latter? No! The mischief done is irreparable. Have we even any known drugs or hygienic measures that will prevent further deterioration? I think not in a case like this. Where the disorder is produced and kept up by a purulent discharge, amputation, or any other surgical arrest of the discharge, will afford room for hope. But there is no such indication here.

If the underlying dyscrasia be syphilis, I think the iodide of potassium, alone, or in conjunction with small

doses of the bichloride of mercury, ought to be given; and in the present instance a trial shall be made of the former of these drugs, although I have but little hope of good accruing.

Dr. Dickinson, following out his chemical theory that albuminoid degeneration depends upon a loss of alkalies by the blood, conceived that the steady use of alkalies was strongly indicated, and that they ought to relieve or cure the disease. Unfortunately, clinical experience has not fulfilled his hopes. The alkalies have not been found of any marked benefit, and the watery anæmic blood, so evident in the patient's countenance, has discouraged a trial in the present instance.

The next indication of the case is to build up, as far as may be, the patient's strength. For this purpose, appropriate measures are the use of the best and most nutritious food, small doses of the bitter tonics, and iron, if it can be borne. There has been some cause for suspicion that the iron given to our patient, so far from checking the diarrhoea, has acted as an irritant to the weakened and doubtless diseased mucous membrane of the alimentary canal. It shall, however, be cautiously continued for the present.

Have we now arrived at the end of our treatment? No; there is evidently still another indication. It is to check exhausting discharges,—most evidently, first of all, diarrhoea; and for this purpose we have so far relied chiefly on opium.

There is, however, in our patient another steady drain, one more to be feared than the diarrhoea,—the loss of albumen through the kidneys. Can we do anything to check this? The class of drugs best fitted to do this are evidently the astringents. Of these shall we choose a vegetable or a mineral? Evidently not the latter; for the only one of the class which would be at all suitable is lead, and it is by no means certain that it would be effective. Moreover, the action, to do good, must be long sustained, and to do this with a saturnine salt would be to graft a new dyscrasia upon a system already broken down; a dyscrasia, too, one of whose accompaniments is albuminuria and degeneration of the kidneys. Our choice therefore must be made from the vegetable astringents; and tannic acid, the general active principle of these, immediately presents itself. There are, however, certain strong chemical objections to its use. Tannic acid coagulates albuminous compounds with the utmost activity. When taken into the stomach, its first action on the villi of the alimentary canal must be not merely by virtue of its exceedingly powerful vital action to constrict their vessels and thus interfere with absorption, but also to cover the tissue with an almost impenetrable coat of coagulated albumen. Moreover, suppose tannic acid in any quantity found entrance into the blood, it would seem as though it must of very necessity coagulate that fluid. There are, then, three most excellent theoretical reasons why tannic acid should not be freely absorbed. Are they justified by clinical facts? It is well known that tannic acid is an antidote of value in tartar-emic poisoning. As it has no chemical action on the double salt, and is in no way its physiological antagonist, it can act only by interfering with its absorption; and here, I think, is a clinical corroboration of the *a priori* argument.

There is an officinal drug very similar to tannic acid, although feebler in its physiological action, which does not precipitate gelatin. It is gallic acid. Evidently the objections to the use of tannin do not apply to this. Its slight local action has but little influence on the intestinal capillaries, nor does it affect the albuminous fluids.

Here, then, is the drug we have been looking for.

Tannic acid is, however, so strongly recommended by some writers as a general astringent that I have been tempted in this case to make a comparative study

of it and gallic acid. When the patient first came under my care, he was left without treatment, and the urine carefully measured, as follows, from day to day:

Date.	Urine passed, in cubic centimetres.
Aug. 21.....	2300
" 22.....	2750
" 23.....	3000
" 24.....	3250
" 25.....	3000

All this time the urine was densely albuminous, becoming almost solid on the application of heat and nitric acid.

On the 26th of August, the use of the gallic acid was commenced. The following table shows the progress of the case up to the present time:

Date.	Amount of urine, in cubic centimetres.	Treatment.	Remarks.
Aug. 26	2900	Gallic acid, gr. xv, t. d.	Urine measured each day at 1 P.M., and record is for previous 24 hours. Changes in medicine made in afternoon of date.
" 27	2500	" " " "	Took quinia for a chill.
" 28	3800	Quinine.	
" 29	2000	Gallic acid, gr. xv, t. d.	
" 30	2750	" " " "	
" 31	3150	" " " "	
Sept. 1	2150	" " " "	
" 2	1500	" " " "	
" 3	1750	" " " "	Urine forms a dense, dark-greenish precipitate with dilute Monsel's salt. Only enough albumen to make a slight opacity with nitric acid.
" 4	1750	" " " "	Serous diarrhoea.
" 5	1850	Tannic acid, gr. xv, t. d.	Urine highly albuminous; with liq. ferri subsulph., heavy precipitate of a dirty gray color, some shades darker than pure albuminous precipitate, but not at all greenish.
" 6	1250	" " " "	Diarrhoea better; still takes some opium.
" 7	1750	Opium as required.	Urine free from albumen; makes a very dark greenish-black—almost blackish—precipitate with dilute Monsel's solution.
" 8	1500	" " " "	
" 9	1000	" " " "	
" 10	1750	" " " "	
" 11	1000	Tannic acid, gr. xv, t. d.; stopped. Gallic acid, gr. xv, t. d., recommenced again.	
" 12	1000	" " " "	
" 13	1400	" " " "	
" 14	2250	" " " "	
" 15	2000	" " " "	
" 16	1000	" " " "	

This table certainly shows a remarkable diminution in the daily amount of urine passed, and an almost total cessation in the escape of albumen from the kidneys, as the result of large doses of gallic acid,—45 grs. daily,—accompanied by the free escape of the acid with the urine.

When tannic acid was substituted, the albumen rapidly reappeared, and the proper tests failed to indicate distinctly the presence of either tannic or gallic acid. The explication of the fact that the amount of urine did not increase during this period is probably to be found in the presence of profuse serous diarrhoea, which constantly recurred, and was possibly due to the irritating influence of the large doses of tannic acid. It is well to state that whilst this treatment has been carried on the man has improved much as regards the dropsy, and a little as regards the strength.

In connection with the above case I desire to bring before you the results obtained from the use of belladonna by a man afflicted with chronic tubal nephritis.

Circumstances have prevented the case being studied as deeply as it should have been; but the following table shows that, so far as amount of urine is concerned, there has been actually slight diminution, instead of increase, during the period when belladonna was exhibited.

Thus, the average of the nine days without treatment is 1800 cubic centimetres; of the sixteen days during which belladonna was exhibited mostly to the point of producing slight toxic effects, only 1769 cubic centimetres.

Date.	Urine.	Treatment.	Remarks.
Aug. 23	1750	None.	Urine is measured each day at one o'clock, and record is for the 24 hours previous.
" 24	1750	"	Treatment changed at one o'clock.
" 25	2000	"	
" 26	2000	"	
" 27	2150	"	
" 28	1650	"	
" 29	1650	"	
" 30	1750	"	
" 31	1500	Ext. bellad., gr. $\frac{1}{6}$, t. d.	
Sept. 1	1650	"	
" 2	1850	Ext. bellad., gr. $\frac{1}{6}$, t. d.	
" 3	1750	"	
" 4	2150	Ext. bellad., gr. $\frac{1}{6}$, twice daily, and gr. $\frac{1}{2}$ at night.	Mouth and tongue so dry that it became necessary to reduce belladonna.
" 5	2100	"	
" 6	1850	"	
" 7	2000	"	
" 8	1500	Got no belladonna, on account of sick stomach, one day.	
" 9	1500	"	
" 10	2250	"	
" 11	1250	"	
" 12	1500	"	
" 13	1750	"	
" 14	1750	"	
" 15	1500	"	
" 16	1250	"	

ORIGINAL COMMUNICATIONS.

CASE OF SYPHILITIC VACCINIA.

BY JOHN W. LODGE, M.D.,

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IN August, 1868, Mr. C. requested me to visit his daughter, aged about four years. The child had been perfectly well until she was vaccinated, at the age of a little less than three years. The father stated that previous to that time she was a notably healthy and robust child,—“the healthiest he had.” The vaccination did badly from the beginning; an unhealthy form of inflammation resulted, accompanied by much swelling and discoloration. The neighboring lymphatic glands were abnormally involved, being much inflamed, enlarged, and indurated.

The constitutional symptoms also were much more widely spread and serious than those which characterize vaccinia; the vital forces were much depressed, producing a condition resembling typhoid, the result, apparently, of the introduction into the blood of some poison, either in conjunction or combined with the vaccine virus. After several weeks, these symptoms partially disappeared, and the child seemed to have nearly recovered, excepting that at and around the spot where the virus was inserted the parts remained inflamed and unduly sensitive.

It was impossible to decide from the account given by the parents what kind of a sore had been produced by the virus,—whether a vesicle or not; or, if a vesicle, whether it had passed through the regular stages of maturation and decline, or if any of the characteristic local signs of vaccinia were present.

Soon after the inflammation and swelling of the arm had subsided, and the general health had been partially regained, symmetrical sores appeared upon the knees, which, beginning as small pimples, afterwards assumed the appearance of pustules or small abscesses, and were finally transformed into ulcers several inches in extent, of a serpiginous character, and surrounded by others of smaller size. The general health at this time was comparatively good, but certainly not so vigorous as before the vaccination; the child remained very fretful, and had lost much of its natural buoyancy. The ulcers discharged very little, being inflamed and dryish, and healed very slowly; after some weeks they closed, leaving a reddish-colored, smooth, and badly-developed cicatrix. During the summer after the vaccination, and soon after the ulcers had healed,

the child had an obstinate attack of diarrhoea, the stools being extremely fetid and mixed with imperfectly-digested food. The attack resisted treatment, and continued until cold weather, when it ceased spontaneously. About this time the mother noticed that there were about the finger, wrist, and knee-joints many little, very hard nodules or prominences, and, at several places upon the skin, an eruption, attended with itching and burning. It was also noticed that the movements of several of the joints, especially the wrists and ankles, were impeded.

The above imperfect history is what was elicited from the parents and friends; there are several points, regarding dates and the progress of the case so far, upon which I could unfortunately get no information.

When first called to the case, about fourteen months after the vaccination, I examined the parents with special reference to the probability of their having been the subjects of constitutional syphilis, but discovered nothing rendering it likely that any disease had been transmitted by them to the child. They were both perfectly healthy, neither of them ever having had gout, rheumatism, nor, so far as I could determine, syphilis. Upon neither side was there any predisposition to scrofulous or tubercular disease. The father, a middle-aged man, had a clear skin, smooth bones, and perfect use of all his joints. The other children, two in number, were robust and healthy, never having had any skin affection: one of these children was older and the other younger than the patient. At this time the child was of fair development and growth, and had a good appetite,—with great desire for acids,—good digestion, and regular bowels. The circulatory and respiratory organs, so far as could be ascertained, were unimpaired, although the circulation through the capillaries was very feeble, the lips white, and the skin devoid of its natural suppleness and rosy color; the eyes very brilliant, the lips full. These symptoms, together with some enlargement of the lymphatic glands of the neck, produced the appearance of a child tainted with scrofulous diathesis.

From about three inches above the knee to within two or three of the ankle, on both legs, and almost exactly symmetrical in configuration and extent, there existed patches of chronic eczema, attended occasionally with itching and burning; at other times they seemed to grow paler, and occasioned very little uneasiness. The eruption was surrounded by the copper- or reddish-brown-colored base so characteristic of syphilides, but otherwise had the appearance of ordinary eczema.

The most interesting phenomena of the case were the numerous small exostoses upon the bones near many of the joints. These growths were of various sizes, generally about as large as a split pea, many much smaller, and some rather larger and more prominent. They were very hard,—quite as unyielding as the bone to which they were attached. The bones of the great toe, the ankle, the knee, the finger, and the wrist, were most affected. Surrounding the knuckles, six, seven, and, upon one, as many as nine, of the smaller prominences could readily be seen and felt, some immediately over the joints, and others upon the continuity of the two bones. Corresponding with the eruption in symmetry, the tumors of one side were almost exactly reproduced upon the other. Upon the spinous processes of the cervical and dorsal vertebrae these growths were also found, and it is probable they existed upon the deep-seated and inaccessible bones. There was a marked difference in appearance between these joints and the joints of persons who are or have been the subjects of gout or rheumatism. In those diseases the matter is widely and irregularly diffused, being deposited not only upon the bones, but in the joints, in the fasciæ, and in the cells of the areolar tissue. In this case the tumors were all well defined and regular in outline, and, being very small, they produced little deformity.

The mobility of nearly all the joints was affected, the ankles suffering by far the most impairment, rendering locomotion difficult and painful. The child moved slowly, with a peculiar, stiff, unsteady gait.

My observation of the case extended over a period of rather more than three months. At the end of that time very little change had occurred in the local symptoms, but the eruption had to some slight extent disappeared, leaving the skin upon which it had existed of a reddish color, stiff and dry. The concretions upon the bones neither increased nor diminished in size or number, but, as the child had gained some flesh, they appeared not quite so prominent.

Very strongly under the impression that it was a case of hereditary syphilis, a very careful investigation was made to determine that point; but all the evidence seemed proof against that view of the origin of the disease. The personal history of the parents, the entire absence of any sign upon either that they had ever been the subject of syphilitic disease, made that very plausible source doubtful.

The case, undoubtedly, was of syphilitic origin. Exostosis is an extremely rare disease before puberty, except when associated with syphilis. The appearance and symmetry of the eruption, and the general aspect of the patient, strongly indicated—indeed, rendered it certain—that there was a syphilitic element in the case.

If it be possible that the parents never were affected with venereal disease, it follows that the child was inoculated with syphilis at the time of the vaccination, either by syphilitic blood or by depraved virus itself.

The relation of scrofula and tubercle to each other, of syphilis to both, and of vaccination to all three, may be a very intricate subject, and, possibly, not a very attractive one, but is surely worthy of very serious study.

ON THE THERAPEUTIC ACTION OF THE SULPHITES IN MALARIAL DISEASE.

BY JAMES TYSON, M.D.,

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AS the fungous origin of malarial disease became less probable, the plausibility of its treatment by the sulphites also lost all rational foundation, since it was based upon the discovery of Polli that these salts are hostile to animal and vegetable fungi. But since clinical results have been quoted in confirmation of the propriety of this theory, it is necessary also that additional experience should accord in its results with what we would expect on the supposition that the theory is erroneous; else must there be a certain amount of evidence in its favor. Accordingly, we have thought proper to report the results of a limited hospital experience, as shown by four illustrative cases.

First, however, let us learn some of the results of others. Dr. T. L. Leavitt, of Germantown, Pa., reports in the *American Journal of the Medical Sciences* for April, 1866, p. 388, a single case of remittent fever in a lady, aged 19, which resisted for more than four weeks the sulphate of quinia. The use of fifteen grains of the hyposulphite of soda every three hours, instituted in the afternoon, was followed on the next morning by "the first omission in the exacerbation for over four weeks." The sulphite was continued three days, then at longer intervals, and, as stated by the reporter, "effected a perfect cure."

Dr. S. E. Hampton states in the *Cincinnati Lancet and Observer*, November, 1867, that in sixty-six cases of malarial disease it failed in one only. A few of these cases only are reported.

Dr. W. E. Turner, in the *Leavenworth Medical Herald*, November, 1867, says that he used the sulphite and hyposulphite in over one hundred and twenty-five cases with unvarying success, and with better after-results than followed the use of quinia.

Dr. C. H. Chubb, of Cambridge, Md., reports, in the *American Journal of the Medical Sciences* for April, 1868, that in twenty-seven cases in which he used the hyposulphite of soda, "the paroxysms were arrested in twenty-five; in eleven of these the arrest was immediate, no paroxysm occurring after the treatment was instituted. These cases were nearly all of the tertian type. In nine cases, one paroxysm, and in the remaining five, two or more paroxysms, occurred after the use of the remedy commenced. These cases were mostly quotidian or double tertians, and the recurring paroxysms were invariably of mitigated severity. In no case was the remedy continued longer than a week, unless there was manifest improvement. In five of the cases relapses occurred; in three of these the disease was again arrested by the same remedy, and did not return, the treatment having been continued some time after the arrest of the chills; in the other two of the relapsing cases, sulphate of quinia was resorted to, to complete the cure."

Two cases only are reported in full,—one of success, another of failure. The former was that of a female, aged 31, who had been the victim of ague for twelve months, during which there was never an interval of more than two weeks between paroxysms. Quinia, iron, etc. were freely administered. "She took the hyposulphite in doses of fifteen grains every two hours, and had but one paroxysm after the treatment was instituted."

To these we append the results of our own experience:

Case I. TERTIAN INTERMITTENT.—J. D., æt. 48, of Ireland, was admitted to the medical wards of the Philadelphia Hospital, October 10, 1870. Had no chill previous to admission. At noon on the 12th of October had a well-marked paroxysm of chill, fever, and sweat. On the 13th was ordered $\mathfrak{z}\text{i}$ of sulphite of soda, to be taken in the twenty-four hours terminating at noon of the 14th. At this time, however, the paroxysm recurred with less severity. Two drachms a day were then administered, in divided doses. On the 16th a paroxysm recurred, but less severely. The same treatment was continued until October 27, when the patient was discharged, *no chill recurring after that on the 16th.*

Case II. QUOTIDIAN INTERMITTENT.—Ellen F., æt. 30, of Ireland, domestic, was admitted October 11, 1870. Has been residing during the past five weeks at Red Bank on the Delaware River, where chills and fever are prevalent.

On October 7, about 4 P.M., had a slight chill, followed by fever and profuse sweating. A similar paroxysm recurred daily to date of admission. On October 12 ordered gr. x sulphite of soda every three hours. The paroxysm recurred at 6 P.M. of October 13. Treatment continued until October 15, paroxysm recurring each day with increasing severity, until we feared to continue the sulphites longer. Accordingly, on the 15th, ordered gr. v quin. sulph. every three hours. *After which no paroxysm recurred.* She was discharged October 21, 1870.

Case III. TERTIAN INTERMITTENT.—Hugh K., æt. 13, in summer drives a canal-boat on the Juniata Canal. Admitted to the medical wards of Philadelphia Hospital, October 12, 1870. About October 1, was seized with a chill, followed by fever and perspiration, to which succeeded a similar paroxysm on alternate days, but not at precisely the same hour. The first paroxysm in the hospital occurred October 13. A half-drachm sulphite of soda was ordered to be taken daily. Paroxysm recurring on the 15th, $\mathfrak{z}\text{ij}$ sulphite of soda were ordered daily. On October 17 paroxysm returned; also on October 19,—earlier and less severe. On October 21, paroxysm did not recur, but at midnight on the 23d again presented itself, though less decidedly; again, similarly on the 25th; on the 26th, at 3 P.M., in very severe form; and at 1 P.M. of the 28th. During this

time $\mathfrak{z}\text{ij}$ of sulphite of soda were taken daily. On the 29th, sulphate of cinchonia, gr. xij, was ordered to be taken by 9 A.M. of the 30th. Paroxysm returned at 10.15 A.M. On November 1 the cinchonæ sulph. was similarly administered. No paroxysm recurred upon that day, nor upon the 3d, but one again presented itself upon the 5th, the remedy having been inadvertently omitted after the 1st. On November 7, another paroxysm. Two drachms of sulphite of soda daily were now again ordered, which were increased to $\mathfrak{z}\text{ss}$ on the 10th. During this interval the paroxysms continued to recur with severity on alternate days. On the 11th the sulphate of cinchonia was again ordered, in so small a dose as gr. ij three times a day. A slight fever presented itself at 10 P.M. of the 12th, but no chill; and after this no paroxysm recurred, the cinchona salt being continued daily.

Case IV. TERTIAN INTERMITTENT.—Isabella W., æt. 29, was admitted October 24, 1870, having the history of a well-marked paroxysm on alternate days for some time previously. The first in the hospital occurred on the 25th. On October 27, $\mathfrak{z}\text{ij}$ of sodæ sulphis were ordered, the paroxysm occurring at 1.30 P.M. The quantity was increased to $\mathfrak{z}\text{ij}$ on the 29th, which was again reduced to $\mathfrak{z}\text{ij}$ on the 31st. After October 27 no paroxysm presented, though on each day, at the time of the expected chill, a feeling of nausea occurred, and continued even at the date of the patient's discharge on November 7, the $\mathfrak{z}\text{ij}$ of sulphites being continued to that time.

Now, what are the conclusions we dare draw from the above cases, bearing in mind that the almost invariable tendency of malarial disease, except in its *pernicious* form, is to abatement in the severity of recurring paroxysms, and in some instances, at least, to spontaneous recovery? Let us consider Case I,—one of recovery under the use of the sulphites. Three paroxysms succeeded each other, the second after one drachm of sulphite of soda had been administered, the third after the use of two drachms; and this was less severe than the previous ones, and was also the last, the sulphites being continued ten days longer. Although some observers might be inclined to class this among the cases which owe their recovery to the sulphites, we ourselves feel compelled to place it on neutral ground, from the fact that the course pursued by the disease was precisely that of the natural history of mild cases,—gradual abatement and final disappearance of the paroxysm. Although it is *possible*, therefore, that the disease was influenced by the treatment, yet the chances are at least equal that spontaneous recovery took place. The case cannot, therefore, be admitted in evidence. Even the most credulous must, however, admit that the response to treatment in this case did not at all compare to that of the sulphate of quinia in similar cases.

How is it with Case II., in which we have the more uncommon condition of increasing severity in the paroxysms? Here clearly the case is against the sulphites. The remedy was useless, at least in the quantity given; and that the case was not an unusual one appears from its prompt amenability to quinine.

Case III. must also be counted against the efficacy of the sulphites; and here no objection can be made to the quantity administered. It reached $\mathfrak{z}\text{ss}$ per day, while $\mathfrak{z}\text{ij}$, which were given many days in succession, must be acknowledged to be a full dose for a boy thirteen years old. It will be noted that there was here a relapse, after the interruption of the paroxysm, during the administration of the sulphate of cinchonia, and that the use of the sulphite of soda was again instituted, but to no purpose. The cinchona was again called to rescue the patient.

In Case IV., a well-marked tertian, the paroxysms disappeared under the use of the sulphites in quantities of $\mathfrak{z}\text{ij}$ a day; and the suddenness with which they ceased, after a full dose of the salt, when no tendency to diminished severity had previously presented itself, is at least striking. And although it is not impossible that such cessation should occur spontaneously, yet the

probabilities are against it; and it must be admitted that if quinine had been administered it would generally be conceded that the subsequent effect was a consequent one. We must therefore accept this case as one in evidence of the efficacy of the sulphites.

These results do not accord with those previously reported. Only one out of four could be legitimately conceded to confirm the efficiency of the sulphites in malarial disease, instead of sixty-five out of sixty-six, as in the report of Dr. Hampton, or twenty-five out of twenty-seven, as in that of Dr. Chubb. We do not wish to be considered as questioning the observations of these gentlemen, and have no doubt but that the results followed the treatment; but had these cases been closely watched, analyzed, and eliminated, as only can be done under hospital surveillance, perhaps all would not have been admitted in strict testimony as to the efficiency of a treatment which, in the face of recent minute investigations, can no longer be said to have a rational foundation.

We have not, however, any right, nor do we wish, to exclude any of these cases. We simply present our own as a nucleus *tending* to prove a somewhat different conclusion, to which others may or may not be added.

The attention of others is accordingly invited to a subject which is so full of interest, both in a practical point of view, and as bearing upon a theory of disease which, although tottering, is perhaps not without something to support it, and, therefore, since not definitely settled, calling upon all of us for such information as our humble facilities may afford.

CASE OF CYSTIC DISTENTION

OF THE PANCREATIC DUCT, IN WHICH DEATH OCCURRED FROM HEMORRHAGE.

BY WILLIAM PEPPER, M.D.,

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JOHN HONAN, æt. 45, first came under observation in the early part of July, 1870.

His occupation was that of a house-carpenter, and he had formerly been possessed of considerable property, but his habits were so very intemperate that he had squandered it all. He had been for years addicted to drunkenness, but, despite this, his health had remained fair until early in 1870, when, during a debauch, he suffered a fracture of one tibia. He was treated for this in the Pennsylvania Hospital, and while there he for the first time observed that he passed blood by stool. The amount was not large, and the hemorrhage seems to have been attributed to hemorrhoids, though none could be discovered. From this time until he came under my care he had quite frequent hemorrhage from the bowels. The blood was usually partly clotted, dark red, and occasionally was in large amount. He suffered no pain, but merely complained of increasing weakness.

When first seen, he was excessively anæmic, the mucous membranes even being blanched. There was no appearance of any special cachexia. The heart and lungs were healthy; the pulse was rather feeble, small, and frequent, owing to the large losses of blood. The tongue was pale, moist, and clean; the appetite and digestion were fair. No vomiting or nausea was complained of. There was no tenderness over the stomach, nor any tumor detectable in the epigastric region. The bowels were habitually constive; the stools normal, save during or soon after an attack of hemorrhage. The spleen was of normal size. The area of hepatic dulness was diminished to a slight degree. No free fat was ever noticeable in the stools, nor had he any aversion to fatty food. The urinary secretion was free and normal. No hemorrhoids could be discovered, nor any ulceration or tumor of the rectum. There were no symptoms of aneurism of the abdominal aorta.

Within a week from my first visit (July 22) he was suddenly seized, without apparent cause, with profuse hæmatemesis,

soon followed by melæna. The vomiting was apparently checked by large doses of aromatic sulphuric acid, and this remedy, together with an astringent salt of iron, was continued for some time afterwards. He was much prostrated by this hemorrhage, which certainly amounted to a pint. The stools continued to contain altered blood for about two days, and during this time were very offensive and passed with much flatus. Perfect rest was enjoined, stimulus, beef-tea, and milk were given in frequent and small doses, and he slowly regained strength, though still remaining remarkably anæmic.

In about two weeks a second and even more profuse hemorrhage from the stomach and bowels occurred, by which he was prostrated to a dangerous degree. Under the same treatment he again, though more slowly, reacted.

On the morning of August 23, just one month after the first attack of hæmatemesis, I was called to see him in urgent haste, but, on reaching the house, found that he had died just as the messenger returned. He had awakened from normal sleep about an hour previously, and soon complained of uneasiness in epigastrium; this uneasiness increased, and before long amounted to an intolerable sense of oppression, distention, and weight, with extreme faintness. He felt impelled to go to stool, and rose from bed for that purpose, but, before he reached the chamber-vessel, fell to the floor, and very soon expired.

A post-mortem examination was made nine hours after death. The lungs were healthy, but very anæmic. The heart was firmly contracted and perfectly healthy. The liver was slightly contracted, and presented distinct evidences of cirrhosis. The spleen and kidneys were normal. The stomach was greatly distended, and, on being opened, was found filled with an enormous clot of blood, which formed a complete mould of its cavity. The mucous membrane was discolored, but quite healthy. The clot extended through the pyloric orifice, which was widely distended and completely relaxed, into the duodenum. On laying open this part of the intestines, an opening half an inch in diameter, with smooth, non-elevated edges, was observed near the point of entrance of the common bile-duct. A thin coagulum hung through this perforation into the bowel. On passing a probe through the opening, it was found to enter a cavity in the head of the pancreas, which was enlarged and closely adherent to the duodenum.

The following minute description of the changes in the pancreas is copied from the report of the Committee on Morbid Growths of the Pathological Society,* to which body the specimen was exhibited:

"The head of the gland, which is enlarged and hardened, presents in its interior a cavity about the size of a large walnut, which communicates with the duodenum by an ovoid orifice at least half an inch in diameter. The walls of the sac are trabeculated, but everywhere covered by a smooth mucous membrane, such as we often see in retention-cysts. There is but little of the proper gland-tissue to be seen in this part of the organ, its place having been apparently usurped by dense fibrous tissue. The same state of affairs is also observable in the body and tail of the gland, although in a less marked degree.

"The contents of the cyst had all been evacuated, but the microscope showed numerous crystals of hæmatin lying on the surface of its lining mucous membrane.

"Thin sections under the microscope showed that the acini of the gland were diminished in size, the epithelial cells constituting their secreting structure being in a state of granular degeneration, and presenting an abundance of oil-globules; and in some of the larger ones could be seen numerous crystals of margarine. The white and yellow fibrous tissue forming the stroma of the gland were increased in quantity, and evidently, by their pressure, contributed to the degeneration and atrophy of the secreting structure, aided, doubtless, by the presence of the dilated duct.

"After the fat was dissolved out by sulphuric ether, a small quantity of acetic acid was added, which brought out clearly the immense number of elongated nuclei existing in the fibrous tissue, and thus attested its vigorous nutrition and growth.

"In view of these facts, the committee submits that the

* *Amer. Jour. Med. Sci.*, January, 1871, p. 160.

specimen is a well-marked case of cirrhosis of the pancreas, and believes that the cyst is a retention-cyst caused by constriction of the excreting duct of the gland (duct of Wirsung); the constriction probably having its origin in some attack of subacute interstitial inflammation, which had been attended by the exudation of lymph,—such an inflammation as constitutes an essential part of the first stage of cirrhosis."

The small intestine was distended with blood, which was dark and, for the most part, fluid. No other disease of the abdominal viscera was found.

Remarks.—Apart from the comparative rarity of disease of the pancreas, and the decided rarity of the termination which occurred in the present case, considerable interest attaches to this observation on account of the great obscurity of the diagnosis. Hemorrhage from the intestines is a symptom of many morbid conditions, among which may be mentioned (without referring to typhoid fever and the other zymotic diseases in which it occurs) hemorrhoids, ulceration or polyp of the rectum, albuminoid disease of the alimentary canal, cirrhosis of the liver, cancer or ulcer of the stomach, some rather rare forms of intestinal ulceration, cancer of the walls of the bowel, and aneurismal tumors opening into the intestines. Some of these causes never lead to hæmatemesis together with melæna; and indeed it is only in the case of cancer or ulcer of the stomach, cancer of the upper part of the intestines, cirrhosis of the liver, and albuminoid degeneration of the gastro-intestinal mucous membrane, or in the event of an aneurism opening into the duodenum, that this combination is apt to be observed.

In the present case, the rectum was carefully examined during life and found healthy. The entire absence of gastric pain, nausea or vomiting, and epigastric tumor precluded the idea either of cancer or ulcer of the stomach. The most careful examination of the abdomen failed to detect the presence of any tumor, whether aneurismal or solid. The habits of the patient and the decrease in the area of hepatic dullness alike favored the idea of cirrhosis of the liver; and it is true that this disease is a very frequent cause of gastric and intestinal hemorrhage. Still, in the present case, the decrease in the size of the liver was but trifling, and there was absence of the symptoms of chronic gastric catarrh (which almost invariably attend the second stage of cirrhosis), of enlargement of the spleen, of distention of the superficial veins of the abdominal walls, and of ascites. It appeared probable, therefore, that, although a slight degree of cirrhosis was present, it was not sufficient to account for the profuse and frequently-repeated hemorrhages.

So, too, in cases of albuminoid degeneration of the gastro-intestinal mucous membrane, hemorrhage is a frequent symptom. In the present case, however, there was no history of syphilis, of bone disease, or of protracted suppuration; and there was, further, no enlargement either of liver or spleen, nor was the urine albuminous; and, as is well known, it is extremely rare for primary albuminoid disease of the alimentary canal to occur without implication of the liver, spleen, and kidneys. Still, such a condition cannot be said to be impossible.

Finally, in cases where the upper part of the intestine is involved in a vascular cancerous growth, the amount of hemorrhage may be so great as to lead to hæmatemesis as well as intestinal hemorrhage. In the present instance, however, no tumor could be detected. There was no cancerous cachexia (to which I attach comparatively little significance), nor any pain or tenderness.

After carefully weighing these different elements in the diagnosis, it appeared impossible to determine the condition more closely than that the patient had a moderate degree of cirrhosis of the liver, in connection with some organic disease of the intestinal walls, probably either albuminoid or cancerous in its nature. It will be observed that the autopsy confirmed the first portion of this diagnosis, but that the real source of the hemorrhage was from a large cyst developed in the head of the pancreas by distention of its excreting duct.

In conclusion, it is interesting to point out the entire absence of any positive symptoms of pancreatic tumor or disease. The most reliable of these symptoms are a tumor in the epigastric region, pain, referred usually to the epigastrium or to the back, jaundice, vomiting, and constipation, together with marked emaciation and debility. In some cases of cancer or of cystic

disease of the pancreas, a marked tendency to passive hemorrhage has been observed; and, in a few instances on record, hemorrhage into the intestine has occurred, either through an ulcerated communication between the pancreas and duodenum, or through the dilated duct, as in the present case. Intestinal hemorrhage cannot, however, be regarded as by any means even a probable symptom of pancreatic disease, and in no such case on record, that I am familiar with, has death resulted from gastro-intestinal hemorrhage.* Of all of the above which are in any way characteristic of pancreatic tumor, not one was present in the case just narrated. The absence of fatty stools has been so frequently observed in cases of pancreatic disease, and the physiological views as to the action of the pancreas in digesting fats have been so much modified, that little importance can be attached to their absence in the present instance. This case will, then, at least tend to further illustrate the great obscurity which at present surrounds the diagnosis of pancreatic disease, while it may also serve to furnish an explanation of profuse gastro-intestinal hemorrhage in any case where none of the more usual causes of that symptom can be detected.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR GROSS.

Reported by James Graham, M.D.

NEUROMA OF STUMP.

HIRAM B., aged 23 years, a mulatto. Five and a half years ago he had his right arm amputated in the middle, by the circular method, for a gunshot wound by a minie-ball. The parts healed kindly, and for six months after the operation the stump was free from pain, and he could use it freely. He was then discharged from the army, and commenced selling papers on the cars. The strap supporting them rested on his right shoulder; and this pressure, he thinks, was the cause of his after-trouble, which consisted at first of occasional jerking pains in the end of the stump, and in the course of about a year a tumor formed on the inner side of the arm, exquisitely tender to the touch, and the seat of an almost constant gnawing pain. A year and a half ago, Dr. Post removed this growth, and he was for some five or six months entirely free from suffering; at the end of that time the tumor returned.

He is now pale and emaciated, his sleep is disturbed, and he is subject to attacks of vertigo. The stump is well formed, but its extremity is drawn rather tightly over the end of the bone, by the contraction of the cicatrix from the previous operation, and is subject to occasional distressing twitches. An inch and a half above this point, on the inner side, and at the site of the scar, is a bulbous enlargement of the nerves, of firm consistence, and from two to three inches in length. Touching it gives rise to the most excruciating pain, and it is a constant source of suffering, aggravated by the slightest changes in the weather or any disturbance of the digestive organs.

The patient was brought under the influence of chloroform, and an elliptical portion, embracing the old scar, removed from the end of the stump. There was slight roughness of the extremity of the bone, which was smoothed off with the pliers. The tumor above was then dissected out. It was found to be closely connected with the biceps and the brachial artery, the vessel having to be divided in its removal. It appeared to be an expansion of the median nerve, enlarged to many times its normal diameter for the space of two or three inches. The wound was brought together with twisted sutures, the old scar being cut away. There was a slight blush of erysipelas on the second day, but it disappeared under the application of a

* In a case reported by Dr. J. M. Da Costa (see *Proc. of Path. Soc. of Philadelphia*, vol. i. p. 9, 1866), the immediate cause of death was profuse pulmonary hemorrhage, for which no explanatory lesion was found at the autopsy.

strong solution of sugar of lead and opium, and the pins were removed at the end of a week, union by first intention having taken place throughout the greater part of the wound.

Three months after the operation he was in greatly improved general health, and there had been no recurrence of the pain.

Dr. W. W. Keen examined the tumor microscopically, and found a remarkable augmentation of the connective tissue and an apparent increase of the nerve-fibres from division.

NASAL POLYPS AND ANAL FISTULE.

Geo. F., aged 48 years, from Illinois. This patient says he has a polyp in his nose. The organ is expanded, and, on throwing his head backwards, a tumor is seen in both nostrils, filling up the entire passage. He complains of difficulty in breathing, a profuse purulent discharge, and pain when he takes a cold in his head, to which he is very subject during his sleep. He snores loudly, and lies with his head retracted, assuming this position in order to bring the mouth in a more direct line with the larynx.

There are two forms of nasal polyps,—the fibrous and the gelatinoid. The fibrous is generally single, occurs at any period of life, and frequently recurs after removal. It is usually situated far back in the nostril, and generally grows, by a broad base, from the floor of the nose or superior turbinated bone, and at times from the septum or walls. When it is attached to the base of the skull, it is called a naso-pharyngeal polyp. It is of a dark-red color, firm consistence, and liable to bleed freely.

The gelatinoid is almost always gregarious, is most common in elderly subjects, and is generally attached by a narrow pedicle to the superior turbinated bone. In its general appearance it resembles an oyster, being soft, white, and glistening, and on its surface is a delicate network of vessels.

In this case the tumor is of the gelatinoid variety. There might be perforation of the septum, and the one tumor appear at both nostrils, but that is not probable. I will introduce this long, delicate pair of forceps along the floor of the cavity, open them, elevate the blades, and then, seizing the pedicle, rotate the instrument on its axis, and with very slight traction I remove the mass. This is one of the largest tumors of the kind I ever saw. The mucous membrane on its lower border, where it was in contact with the air, is red and thickened. It is pyriform in shape, and measures fully three inches in length. You see immediately on its withdrawal another project itself half an inch from the nares. This one I remove in a similar manner. It resembles in size and appearance the other. The hemorrhage need not deter you from continuing the operation, as you must be guided entirely by the sense of touch. (Two others, of nearly equal size, were then removed from the left nostril). The patient can now breathe freely; the bleeding is slight, and will soon cease spontaneously. I make it an invariable rule to inform my patients that there are probably other smaller growths behind, which, through time, may require another operation.

He is also troubled with an anal fistule. He will get on his elbows and knees, and you see two openings on the right side, about an inch and a quarter from the verge of the anus. On inserting the probe, I find they communicate with the bowel some five or six lines above, which is the usual position. Formerly it was thought that the internal opening existed as high up as two and a half or three inches; but the able dissections of Dr. Ribes and Dr. Horner proved the contrary. When the former view was acted on, the resulting wound was necessarily a large one. I will now substitute a grooved director for the probe, and bring it out at the anus,—a mode of operating originally suggested by myself,—and then with a single sweep of a probe-pointed bistoury the sinus is laid open; also divide the track between the two external openings and scrape away the adventitious matter that lines it. I will next insert a tent wet with sweet oil into the wound, which we will allow to remain for three or four days, the bowels being locked in the mean time. At the expiration of that period a mild laxative or enema will be given.

[The man was again presented to the class in the course of a week, when seven additional polyps, of small size, were removed, showing their gregarious character. He was discharged cured at the expiration of another week.]

UNIVERSITY OF PENNSYLVANIA.

SURGICAL CLINIC OF JAMES E. GARRETSON, M.D.

Reported by Dr. Frank Muhlenberg.

CLEFT PALATE.

CASE I.—During my former lectures, when cases of this description have been presented for your examination and study, I have taken occasion to remark the usual concomitant occurrence of cleft palate with hare-lip, and that in the great majority of cases the affections are congenital. In this little boy now before you, who is but four years of age, we find, however, the existence of but the one, and that one which is, from its situation and surroundings, more difficult to treat successfully by an operation,—viz., cleft palate. We do not intend operating upon him to-day, as his vitality is at present below par, and, as I will show you in the remarks to be made on the subsequent case, it very often happens that, although the operation in itself may be neatly and successfully performed, subsequent union of the parts will not take place, as the result of causes which will then be mentioned. I only present him as a somewhat peculiar and interesting exemplification of the congenital character of this affection. He is one of four children, all of whom are laboring under the same *lusus nature*, but the parents, strange to say, are perfectly free from any disease or deficiency of either the hard or soft parts of the roof of the mouth. The eldest child has a very large opening; the second, a smaller one; this boy, who is the third child, a still more diminutive one; and in the youngest it amounts to nothing more than a small hole. This case is not, as I have remarked, ready for relief by an operation, and will return at some subsequent date.

DOUBLE AND COMPLICATED HARE-LIP.

CASE II.—This patient's face is no doubt familiar to you all, for he has been before the clinic on four or five occasions, and, in addition to the interest always connected with cases of this description, this case has been pre-eminently so as demonstrating the process of repair in tissues, its sudden arrest, but subsequent renewal and accomplishment, as the result of appropriate assimilation, induced by tonic treatment. Six weeks ago he was presented to you as laboring under double hare-lip, and also cleft palate of both the hard and soft parts,—both of these lesions being congenital and of twenty-five years' standing. I then attempted to relieve him of the latter affection by the usual process of freshening the edges of the soft palate, and by bringing them together by means of the interrupted suture, after making an incision in the mucous membrane on each side of the wound, hoped to obtain good union; remarking, however, that the great trouble with these cases was the disposition of the parts to slough. He again presented himself three weeks subsequently, and on examination we discovered that the parts seemed to be beginning to put on degenerative action. At his own request, we operated then for the double hare-lip by our usual method, leaving a slip to serve as a substitute for the bulb always seen at the median raphe of the upper lip. The edges being freshened, the pins were introduced and the ligatures applied around them by figure-of-8 turns. The patient then left us, and when we saw him, a week after this last operation, the parts still refused to heal, either in the palate or the lip; and we determined to start, if possible, the proper assimilative process by the administration of tonics, in the form of twenty-five drops of tinct. ferri chlor. three times daily. As the granulating surfaces were also weak, we reapplied the straps of adhesive plaster, to give them support and remove all the strain necessarily made upon them by the action of the muscles attached to the angles of the mouth. Under this plan of treatment we have attained now—in two weeks' time—the most encouraging results. The parts have all nicely healed, and the granulations are contracting, as usually happens in this mode of repair. The long slip, which seemed out of place, has almost disappeared, and has accommodated itself very nicely to the position of the bulb of the upper lip. The contraction will still go on and the scar become much less in size, and we may now discharge this patient as cured, remarking that had we not placed him on a tonic, as we did, to raise his vitality to a higher standard,

the parts would possibly have sloughed very extensively, and an unsightly condition have been the sequence. This was evidently a case in which we might say aplastic lymph was exuded; and I cannot but add a few words here, in connection with this subject, on the repair of tissues. Mr. John Hunter, and others generally received as authority on such subjects, state that there are five methods of repair in tissues,—viz.: 1. By the first intention. 2. By the adhesive inflammation. 3. By the second intention. 4. By the third intention. 5. By the subcrustaceous cicatrization. Now, in my humble judgment, I think that Mr. Hunter and the other learned gentlemen were somewhat unhappy in the selection of five different names for a process which is essentially one and the same in the repair of all tissues; indeed, it is nothing more than an extension of a perfectly normal and natural process,—one that is going on constantly, even when no wound exists in the parts. You all know what blastema means. If we break an egg, we have, in the albumen, the analogue of the lymph thrown out in the repair of tissues; and I apprehend that in all repair we have lymph thrown out,—that, in other words, it is a process or action constantly going on, even in healthy tissues in which there is no break or loss of continuity, and that it is not, necessarily, the result of inflammation. It is being constantly thrown out by the vessels in the normal condition of a part, in which there exists circulation and assimilation of the particles intended for each particular organ. The natural condition of the part certainly is this; and if we take a finger as an example, we will see that the process of repair, both in its uninjured and wounded condition, is nearly one and the same. In their healthy state the parts are being laved in the blastemic exudation going on all the time from the circulatory vessels, and each nerve, each tendon, each muscle, each cartilage, etc. is appropriating to itself by its chemico-vital force just those elements which nature intended it to receive, and no other. It rejects what cannot be of service to it; and thus a nerve will not receive the material intended for cartilage, nor the reverse. Treviranus it was, I think, who said that "each single part of the body, in respect to its nutrition, stands to the whole body in the relation of an excreted substance;" and our views at the present day seem to be in consonance with those of this distinguished author. If such now is the normal condition of the parts, what ensues when we interrupt the natural process of assimilation and repair? Suppose we cut our finger with a very sharp knife, making a clean incision, and then immediately coaptate the parts, binding the sides of the wound firmly together? You will all tell me it heals nicely and no scar is left. It heals, in other words, by what Mr. Hunter and others call first intention. If any excess of lymph is here thrown out, I think the quantity must be very small; indeed, the repair can properly be said to be nothing but a continuation of that process which was going on in the part just previous to the incision. It was merely interrupted for the time being, but recommenced as soon as the interrupting cause (the knife) was withdrawn. The blastema, or lymph, is again thrown out, and all goes along as before; the cut vessels are united, there is but little irritation in the part, and the wound heals without an observable cicatrix, or by the first intention of Hunter. It is held now that even when a wound is gaping, and the sides are at some distance from each other, the process of repair is the same as in the above case; and it is an unfortunate error to designate as *five* what is really but *one* method. Call it granulation if you will, or call it adhesion, it is naught but the continuation of the natural process. Neither does it necessarily require the existence of inflammation to carry on this process. Mr. Paget says that "the process of repair is different in man from what it is in animals; that in the latter it engenders much more inflammatory process and provisional callus, and, as a rule, it is different in the two;" quoting also, as an exception in man, the cases of undiscovered fractures of a humerus, rib, and clavicle, in all of which cases the amount of surrounding callus resembles that found in the fractures of animals. But these very three cases, I think, prove the incorrectness of the theory; for place the animal with the broken limb under the same favorable circumstances as man,—put its limb in a splint and at rest,—and the result would be nearly the same as in his case. In the cases Mr. Paget mentions, the parts were constantly moved about, irritation and undue inflammation were

set up, and a condition resulted similar to that in animals under the same circumstances.

In the case before us, the parts refused to heal, as a result of degeneration and from lack of vitality, both local and general. We therefore placed him on specific treatment, in the hope of furnishing to the blood such healthy particles that, these being properly assimilated, degeneration would cease and repair commence. Such has been, most happily, the case; and it seems to give us hope that the day will come when all requirements will be so far understood and appreciated that the physician will be able to control disease to a far greater extent than at present.

POISONING OF CHILDREN BY WHISKEY.—Dr. P. De Marmion (*New York Med. Jour.*, December, 1870) describes three cases of poisoning of children by whiskey, two of which were fatal. The symptoms were complete coma, very rapid stertorous breathing (80 per minute), lowered temperature ($93\frac{1}{2}^{\circ}$ – 94° in axilla), and involuntary discharges. In the two cases treated by himself, liq. ammoniac acetatis was used freely, and in the case that recovered the doctor appears to attribute the favorable termination to an enema of two ounces of the remedy. In the third case a post-mortem was made. The chief peculiarities discovered were intense venous congestion of the lungs, liver, and kidneys, distention of the right heart, and absence of rigor mortis from the arms and neck. Dr. De Marmion believes acetate of ammonia to be the sovereign remedy in acute alcoholic poisoning, and that it acts by increasing the rapidity of the retarded blood-current and maintaining the fluidity of the blood, whose integrity is threatened by the coagulating action of the alcohol.

HEREDITARY SYPHILIS (OEDMANNSON: Nord. Archiv., 4, p. 73. Prof. SCHUPPEL: Archiv. f. Heilkunde, vol. xii, 1 Heft).—In five out of nine cases of hereditary syphilis the cord and placenta were affected to such a degree that death could be directly attributed to these alterations. This process consists of an atheromatous degeneration of the cord, with thickening of the intima, which may become converted into a calcareous shell, loosely connected with the subjacent parts. In most cases there existed placentitis interstitialis, which sometimes embraces half this organ, which is found thickened and converted into a hard, firm, almost cicatricial tissue. The umbilical veins are contracted, while the arteries are narrowed in calibre and sometimes entirely occluded by organized thrombi.

Prof. Schuppel describes, under the name of pylephlebitis syphilitica, the following manifestation of congenital syphilis. The liver is enlarged, and in the soft, relaxed parenchyma of the organ, hard nodular masses and cords can be felt, which on section are found to follow the course of the portal vein. The lumina of the vessels are greatly narrowed by a growth having its seat in their walls, the central layer of which is of a grayish-yellow color, opaque, and dry, while the external broader layers are of a pale gray color, soft, and somewhat transparent, and gradually and imperceptibly pass into the tissue of the liver. This growth corresponds microscopically with the gummata syphilitica of the adult, consisting of numerous lymphoid cells, which are well preserved in the peripheral layers, while towards the centre they are converted into a finely granular detritus mixed with fatty molecules. The groundwork of the growth consists of an imperfectly fibrillated connective tissue, in which here and there cheesy deposits and pigmentary masses are found. An infiltration of lymphoid cells takes place in the substance of the liver itself.

DYSTOCIA FROM MALE INFANTS.—The difference in size between the heads of boys at birth and the heads of girls is very slight, amounting only to three-eighths of an inch in circumference,—just such a difference as might be produced by enclosing the head in a single fold of a table-napkin. Yet so nicely is the size of the fetal head adapted to the capacity of the pelvic canal, that this slight difference is enough to make the birth of the male more than twice as fatal to the mother as the birth of the female infant; whilst the proportion of stillbirths among male infants is nearly twice as great as that of girls.—*Edin. Med. Jour.*, December, 1870.

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EDITORIAL.

SANITARY LAWS.

THE subject of sanitary laws may engage attention in two senses. First, in our regarding them as synonymous with the natural laws of health, which grow out of the very constitution of the living body and its relations to the physical agents by which it is surrounded and its several organs stimulated and sustained. Secondly, in considering them as enactments by constituted authorities for the abatement and removal of nuisances, preventing the spread of contagious diseases, and enforcing observances for the preservation of the public health.

Our remarks on this occasion will be chiefly directed to the latter of these two views of sanitary laws. To make legislation effectual, there must be knowledge and sincerity on the part alike of the law-makers and the great body of the people on whose behalf the laws are made; and also a clear understanding between the two parties that the law has been framed after a due study of the wants of the case and the best means of meeting them, and that the people, when it has been promulgated, shall be able to see its true bearings, and to recognize, from their own observation and experience, its utility and the feasibility of its enforcement. These conditions for useful legislation and enactment are binding under all circumstances, but in an especial manner are they called for in framing and giving effect to sanitary laws. Now, it happens too frequently that these conditions are not complied with, neither the legislators nor the people having the requisite knowledge of the matters to be acted on. The persons—viz., members of the medical profession—who it might be believed know best the requirements for preserving health and preventing diseases the result of hygienic neglect, are not the ones elected for sanitary government. Let us confess, however, that medical men in the aggregate do not, either in their collegiate course or by subsequent study, acquire a due comprehension of the numerous subjects which come within the range of public and family and personal hygiene, to enable them to fill the part of ready and judicious advisers and guides in sanitary questions, as they come under notice daily and almost hourly. Still, from them chiefly, if not solely, are the people under the necessity of gathering the needful suggestions for their sanitary welfare, under a belief that their counsellors have made them-

selves depositaries of knowledge to meet all contingencies. If the people of any community are deceived on this point, no blame should attach to them; nor should we be surprised, although we cannot help being pained, at their own ignorance of the evils that exist detrimental to health. Early instruction, or instruction at any time, in hygiene in their common schools and colleges, if given at all, is exceptional by its infrequency. Hence the public are not prepared either to incite or to give their ready assent to sanitary legislation. Grosser nuisances, such as damaged food, garbage and filth on the streets and byways, and certain manufactures which offend the senses, are admitted on all sides to require stringent sanitary enactments for their removal and against their recurrence. But if sanitary inspection be extended to the interior of houses and their immediate surroundings, and it be shown that there are noisome and overflowing cesspools, offal accumulated in corners of yards or in cellars, and tenement-rooms crowded with lodgers, at the risk of suffocation and the engendering of the worst forms of fever, there is by no means a ready acquiescence, if there is not actual opposition, on the part of the tenants and owners of these houses to the cleansing and purifying measures adopted by a board of health, or the municipal government, when it becomes alarmed at the imminence of an endemic or epidemic disease, the local causes of which had been allowed to increase and accumulate unheeded. The subjects of sewerage and the disposal of sewage, in a sanitary and economical point of view, are far from being settled by sanitary legislation, although in both important improvements have been made. The manner in which quarantine should be enforced, with due regard to the health of all the parties concerned and to the interests of commerce, does not rest on universally-recognized grounds. Speculative views of the nature of contagion and of its multifarious sources, and excessive fears of its virulence, on the one side, and intense greed, which for present gain would nullify all quarantine regulations, on the other, leave much to be adjusted for procuring general assent and support.

There are other ways of poisoning the air that we breathe than by effluvia from decomposing vegetable and animal matters and the residue of substances used in manufactures,—which require sanitary legislation. Legal prohibitions are framed against the sale of tainted meat and decaying vegetables, but none are found against the vicious architectural arrangements by which tainted air is allowed to accumulate in crowded rooms, halls, and churches from deficient ventilation. People are poisoned daily and nightly by the retained irrespirable gases and animal exhalations whenever they meet in numbers. Judges, jurymen, pleaders, and witnesses are in this way punished in their court-rooms, alike with the juveniles and their teachers in their school-rooms, the preacher and his congregation, the singers and the crowd collected to enjoy their melodious strains. Why should it not be made a part of the duty of building-inspectors to see, not only that public edifices of all kinds shall be so constructed as to prevent loss of

life or personal injury by their giving way when completed, but also to prevent, by suitable provision for ventilation of these buildings, the bodily suffering at the time and subsequent disease of those persons who will be collected in them for the various purposes just named? The common defects in the construction of buildings, owing to which their occupants for the time can neither breathe without oppression nor hear what is said or sung, are a positive fraud on the public who are promised instruction or amusement, as the case may be, but which is imperfectly gained at the cost of comfort and health. One might wonder at this lack of applied science in pneumatics and acoustics being tolerated as it is by the multitudinous sufferers, were they not, in the first case, so generally ignorant of the function of respiration and the requirements for its healthy discharge, and at the same time accustomed, in their own houses and lodgings, to imperfect ventilation and its consequences, in headaches, oppressed feelings in the chest, dyspepsia, nervous disorder, lassitude, and debility, from which they suffer on each occasion of assemblage for a short period in public halls. Here again the aid of building-inspectors should be invoked, and power given them, after suitable measurements of the capacity of the rooms of a new house, to inscribe on a mural tablet the number of persons who can, without their health suffering, occupy for the night one or more of these rooms. As things now are, it will be found that the inmates of a majority of inhabited houses have neither the requisite number of cubic inches of respirable air in their bedrooms, in which so large a portion of the twenty-four hours is passed, nor proper openings for the continual introduction of fresh atmospheric air, and the escape of that which has become deleterious in the process of breathing and by exhalations from the skin. Just now we need only advert to hospital ventilation, the problem of which has not been satisfactorily solved, although great advances towards this end have been made of late years. In the name of common humanity our municipal governments ought to be loudly and urgently entreated to take stringent measures for preventing the accumulation of crowds of human beings in the rooms of tenement- and lodging-houses. Murder and manslaughter are punished with all the severity enjoined by law; and what should exempt those parties from infamous punishment who, speculating on the necessities and ignorance of the poor and the outcast, increase their gains by renting rooms in which these unfortunate beings herded together like cattle collected for the shambles, and encounter nightly the dangers and at times the reality of suffocation and its concomitant distresses,—ten of the lodgers taking the space and consuming the air that would be a scant allowance for one?

The great sanitary want, next to that of fresh air, is pure water, supplies of which are furnished to cities and towns by the joint action of chartered companies and legislative bodies. Everywhere is felt the necessity of enlisting the aid of the engineer and the architect to procure an abundant influx of pure water, even from great distances, and its collection in large reservoirs, to

meet not only present but future wants of the inhabitants. An appropriation of a portion of this supply for public baths has been at last made by the municipal authorities of some of our chief cities. We must be content with the attainment of the real hygienic object, personal cleanliness and health, by the erection of these bath-houses, and not allow ourselves to indulge in comparisons between them and the immense and magnificent edifices of ancient Rome, which included apartments for every variety of bathing, and within whose vast precincts were found temples, palestræ for all kinds of athletic exercises, and extensive libraries. Regarded as a means of promoting health and amusement, which is itself hygienic, the enclosing of grounds and preparing covered ways and the needful apparatus for public gymnasia would be a fit subject for sanitary legislation. In a moral point of view these establishments are of great service, by the expenditure of redundant excitability and of instinctive eagerness for bodily action of the young, who are in so many instances prone to mischievous sports under the natural prompting for exercise.

We conclude these observations by recurring to our belief expressed at the beginning,—viz., the necessity of the great body of the people having a knowledge of real sanitary wants and ability to appreciate and sustain sanitary laws framed for their benefit. No great scientific preparation is required for this purpose. Children, even in the nursery, and still more easily when acquiring the elements of learning, might soon gather up in conversation with their seniors, and without formal inculcation, a knowledge of the composition of the atmosphere and some of the properties of the gases of which it consists, and particularly the uses of oxygen in respiration. They might be told of nitrogen and nitrogenous compounds in connection with animal food and animal decay, in contrast with starch and sugar and gum. An acquaintance with elementary anatomy and physiology might be begun by a little girl when watching the cook or her mother eviscerating a chicken and seeing the parts spread out on a table, and also by a boy in witnessing the preparation of an ox, a sheep, or a lamb for sale by the butcher. A brief primer of anatomy and physiology would do the rest. Much could be done by the physician in his intercourse with little folks, who would be strongly impressed with anything he might say on the structure and functions of their bodies, and how their health would be benefited or injured. Children often speak correctly and fluently before they know the meaning of grammar; they might with equal readiness, by the aid of proper surroundings and conversation, gather the elements of sanitary science before they could be supposed to be ready to hear scientific lectures and witness scientific demonstrations. A very important aid in the diffusion of this so-much-needed knowledge would be found in the establishment of courses of popular lectures on physiology and hygiene. People in general are quick to learn and appreciate the meaning and value of what is said, when they find in it a constant application to themselves.

OPIUM-CULTURE.

THERE appears to be no reason for the practical monopoly which Turkey and Egypt hold of the European and American opium markets, and efforts are at last being made all over the world to test the pecuniary feasibility of growing the poppy. According to Mr. John W. Hood, of Melbourne, Australia bids fair to become a source of the drug. Last season about a hundred-weight and a half was sold in the Victoria market, and proved to be of very good quality, containing from eight to ten per cent. of morphia. The yield appears to have varied from fifty to eighty-four pounds an acre, but no doubt will be increased as the best method of cultivation becomes better understood. According to Julius Jobst, it is very probable that in Germany opium will hereafter become a staple production. The present season has been unfortunate. The early continued dry weather injured the plants very much, and the war breaking out just at the critical time interfered very greatly with the gathering of the crop, much of which was in consequence lost. The best Würtemberg opium will bring on the spot a paying price, and the yield of morphia is twelve per cent., even in moist samples. The climate of England is said to be too damp for the culture of the poppy. In our own country experiments have been made, but not as yet with assured success. There can be no doubt but that the poppy plant will flourish somewhere within our wide-spread limits. Whether opium can be produced with profit is a different question. Last spring, when endeavoring to get some seed for a correspondent, we were informed by the seedsman that the market had been thoroughly swept by parties purchasing for planting in the Southwest. Of the results obtained there we know nothing, but in the January number of the *Journal of Pharmacy* Mr. George W. Kennedy gives the experience of a friend in Illinois. The plants did not do very well, those in a wet soil failing altogether, and many of those receiving good garden-culture producing little or no opium, so that the average yield was very small. The opium itself appears to have been of good quality, containing 8.75 per cent. of morphia.

DISPENSARY FOR SKIN DISEASES.

WE are glad to learn that an incorporated institution of this name has been organized and opened in this city for the gratuitous treatment of all cutaneous diseases. We believe that this is the first independent dispensary for the treatment of these affections established in America, all the others being at present attached to hospital or medical schools. It is a common feeling among the profession here that skin diseases are comparatively rare in this country, and the natural but unfortunate result has been that but little special attention has, until very recently, been given to their study. Doubtless there is, to a certain extent, good ground for this impression, but none the less must any one, who is familiar with the class of

patients applying at our general dispensaries, be acquainted with the fact that there are large numbers of the poor of this and other American cities suffering from cutaneous disease, often in very aggravated forms. We are satisfied that a wide field of usefulness lies before this new dispensary, and trust that the results of its operations may accrue as well to the interests of science as to the benefit of the patients who apply to it for relief. The new dispensary is regularly incorporated, chartered, and under the management of a board of trustees, consisting of Prof. S. D. Gross, President, and Messrs. H. A. Duhring, F. Collins, E. N. Wright, and J. Warner Johnson. The treatment of the patients, which will be entirely gratuitous, is under the charge of Dr. L. A. Duhring, who has fitted himself in an eminent degree for this special work by prolonged study of cutaneous diseases in London, Paris, and Vienna. The dispensary is located at 216 South Eleventh Street,—the hour for the application of patients being 11 A.M. daily.

TRANSACTIONS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting was held December 28, 1870, at 8 P.M., Dr. W. H. Pancoast, President, in the chair.

At the request of the President, DR. TURNBULL gave some account of cases of pyæmia as recorded in "Register of Surgical Operations," reported by the medical officers under F. V. Hayden, M.D., in charge of Sheridan U. S. A. General Hospital during the late war. He referred to the records of twenty cases of death from pyæmia among the Federal troops, out of two hundred and eighty-four amputations, and fourteen deaths from the same cause out of one hundred and seventy-five Confederate soldiers. He also detailed the four following autopsies, which seem to shed some light upon the fearful mortality which attends this form of blood-poisoning from the introduction of pus or some septic material into the circulation. In one case the left lung was filled with abscesses; a cupful of liquid pus was found in the left pleural cavity; there was even pus here and there on the surface of the peritoneum; the spleen was highly congested; the other organs were normal. In another case, where amputation had been performed below the knee at the upper third of the leg, there were found caries of the femur up to the trochanter major, scattered collections of pus throughout the whole stump, and pus in the veins; the intestines were congested, the mucous membrane pultaceous, but no perforations had occurred; adhesions were present in both pleural cavities, the spleen was enlarged, small abscesses existed in the liver; the kidneys were healthy. In a third case the stump was partially healed, the femoral vein contained pus, the femoral artery was brittle and easily ruptured; the intestines were congested; the left lobe of the liver contained abscesses; the spleen was almost entirely disintegrated; no pus was found in the lungs; the heart was flabby, the left kidney congested. In a fourth case there were phlebitis, pus in the internal saphenous and obturator veins, a few ounces of pus between the glutei muscles, pus in the capsular ligament of the hip-joint, and a quart of pus in the left pleural cavity. There were tubercles at the apex of the right lung, and softening tubercles in the middle lobe of the right lung.

Dr. Turnbull was of the opinion that no specific treatment (as that by bromine, iodine, hypo- or bi-sulphites) was of much utility in pyæmia while pus was pent up; and this he has proven in numerous cases of purulent ear-disease, a case of which he reported,—viz.: A young girl suffered from a neg-

lected discharge, with perforation of the membrana tympani, when, on exposure to cold, an acute inflammation arose, attacking the mucous membrane lining the mastoid cells. No outlet being made for the suppuration, the lateral sinus became affected, fever followed, and after some time death terminated the case. At the autopsy pus was found in the lateral sinus, and a secondary abscess was found in the cerebellum.

He then spoke of the great importance of opening the abscess over the mastoid process before extensive ulceration or caries had taken place, and stated that, should we be called when the acute stage is passed and there is a narrow opening, it is proper to enlarge it, and even scrape the bone, if soft and carious, with a hollow chisel. At the same time the patient's strength should be supported with nourishing diet, alteratives, and tonics. He had performed the operation of trephining this bone for this affection for the first time in this country in 1862, and has repeated it with success.

He also dwelt upon the great importance of the treatment of "Otitis media purulenta," or the otorrhœa of the older writers, —a disease very prevalent among children,—and stated that he was satisfied, from numerous observations, that, when neglected, there is apt to be developed cheesy degeneration of the lymphatic glands, which is often followed by phthisis. He was supported in this opinion by the testimony of Holmes and Niemeyer. The first, in his recent work, observes, "I have also maintained in the following pages an opinion which has been forced upon me by clinical experience, but which, since the appearance of the first edition of this work,* has been sustained in a remarkable manner by the experimental researches of Dr. Wilson Fox† and others, that local disease is frequently not the symptom but the cause of the constitutional diathesis, and that one of the strongest motives for operative interference in the exhaustive diseases of childhood is to be found in the consideration that they prove the source of fatal visceral mischief."

DR. HORNOR, U. S. N., spoke of a disease which occurred in the Piedmont district in the State of Virginia, during the past summer, which commenced in the Texas cattle, and spread among the hogs, chickens, and other inferior animals. This disease, although enveloped in obscurity, he believed to be similar to pyæmia. It was infectious. The symptoms were as follows: There is fever, with a temperature of 103° F.; the red corpuscles lose their vitality,—the blood will not coagulate; there is hemorrhagic leakage from the bladder; the gait is staggering,—the sick animal falls down and rests upon the brisket; there is great enlargement of the pupil and eyeball; and delirium. All of these symptoms point to a true blood-poisoning. Whether the poison or virus is an effluvium, or is taken into the stomach with the food and water, or is the ixodes reticulatus or tick which infests the skin of Texas cattle, observation and the microscope have yet to decide. Post-mortem examination of the cattle which died from this affection showed the lungs to have been highly inflamed, ulcerated, and filled with pus; the manyplies or third stomach was distended, gizzard-like, with impacted food, unmastered and hard; the small intestines on their mucous surface were mottled and in a gangrenous condition. The sac of the renal gland was filled with blood to the amount of two gallons. The chemico-vital changes referred to defy all remedies.

HYPODERMIC USE OF MORPHIA.—Dr. Clifford Allbutt (*The London Practitioner*, December, 1870) calls attention to the possibility of the hypodermic use of morphia becoming habitual, and states that he himself has now under care nine patients in whom neuralgic pains recur so soon as the injections are omitted, and who are in truth morphia devotees. He states his belief that reliance upon morphia thus given in neuralgia, rheumatism, etc. only ends in a curious state of perpetuated pain, of irritability and depression, and of artificial need of a certain stimulant.

* *The Surgical Treatment of the Diseases of Infancy and Childhood*, by O. Holmes, M.A., Cantab. (second edition), 1869, Preface, p. xi.

† *On the Artificial Production of Tubercle in the Lower Animals*. London, 1868.

CORRESPONDENCE.

LETTER FROM WHEELING, W. VA.

FROM JAMES E. REEVES, M.D.

TO THE EDITOR OF THE MEDICAL TIMES.

WHEELING, October, 1870.

DEAR SIR,—I send you the notes of a very unusual case of epilepsy which I met during the past summer. If they seem sufficiently interesting, I should be glad to see them appear in your columns:

G. W. D.; son of a farmer in Frederick County, Maryland; of healthy descent; æt. 34; height 5 ft. 11 in.; weight prior to his ill health 170 pounds, but for the past seven years average 140 pounds; light hair and eyes; wears No. 6½ hat. Did not like to work on the farm. Quitted home at the age of sixteen years, and engaged at Elba Furnace and Iron-Works, Howard County, Maryland, on the line of the Baltimore and Ohio Railroad. At the age of twenty, because of his remarkable business skill, he was given entire control of the above-named extensive works, which he conducted successfully for the next eight or ten years. Very soon, however, after assuming the responsible and complex labors of his new position he suffered a sudden suspension of consciousness, gave a look of confusion, and tottered for a moment. In a few days thereafter he was stricken down with enteric fever, and suffered a most severe form of the disease, marked by delirium and stupor; he was dangerously ill for four weeks.

About three months after recovery from this febrile attack he suffered another momentary vertigo and loss of consciousness; then another and another, with gradually increasing severity, until five years from the date of the first attack of unconsciousness, when he fell suddenly to the ground, senseless and convulsed. A few months previous to this severe seizure he was married, being at that time apparently in the fulness of health. Two years later, having had in the meantime several seizures of greater or less severity, he complained of weakened memory and forgetfulness, and his friends noticed that he was growing exceedingly irritable and impatient in disposition. In December, 1863, or nearly seven years from the date of his recovery from his attack of typhoid fever, he suffered an unusually severe seizure, which has left its effects to the present. On recovery from the spasm, which lasted for an hour or more, he got hold of an old violin on which he used to saw, and, instead of using the bow, *picked* unremittingly for forty-eight hours an old tune he had learned in his boyhood. The following June he had two seizures; then, after an exciting dance, in September another; and from that date (1864) to the 4th of April, 1870, the attacks have come on every three or five weeks, each one followed by an uncontrollable impulse to make hurried music of the same old tune, and at which exercise he has occupied himself from twelve to forty-eight hours, taking the while neither food nor drink. Indeed, at such times he cannot be interrupted without the danger of exciting violent and unmanageable rage; and if he fail, at the moment when the impulse for music seizes him, to be supplied with some sort of musical instrument, his frenzy is almost unconquerable. His friends well understand him, and are careful never to suffer him to go from home without at least the safety of a jews-harp!

The attacks have invariably come on at midnight, and continued as regularly twelve hours, during which he has been known to suffer twelve or thirteen spasms. After recovering from the fall and spasm, he is occupied twelve to forty-eight hours with his music; during the next thirty-six hours, sometimes he is a raving, violent madman,—may be coaxed, but cannot be coerced, outside of a strait-jacket. On one occasion, restraint being attempted by his aged father, he attacked him and choked him almost to death. At another time, being in Baltimore, a policeman mistook the condition of the man, and the poor fellow was cast into a station-house for resisting the officer. At another time he rushed into a Maryland court-house, before an astonished judge and jury, to arrest sentence of death which was being pronounced upon a negro felon, and he was imprisoned for *contempt of court*!

Some of his friends have declared that he possesses the gift of *prophecy*, and they adduce in evidence that a few days before destruction came along the banks of the Patapsco, in July, 1868, he minutely foretold the terrible flood. It must be true, however, that for several hours immediately preceding the seizures he possesses a wonderful power of memory, for I have been assured by his wife, who is an intelligent lady, that at such times, after a first reading, he can recite page after page of any sort of matter, with scarcely a mistake.

Occasionally he complains of pain in the right side of the head, which is usually accompanied with flushed face. He is fond of company, but does not now engage in business of any kind; and, though very religious, devouring all the religious books he can lay hands upon,—which are soon forgotten,—he is passionately fond of cards. He has always slept well, has good appetite and easy digestion, and is an immoderate water-drinker and slave to tobacco; has long been a smoker, and habitually consumes five or six segars after each tea.

He has been under various plans of treatment; had his back once burned thoroughly by the moxa, and an issue made in the back of his neck. Has taken bromide of potassium in large doses, and continued them for a year at a time. During the last three years he has had but little treatment of any kind, and thinks he is as well if not better off "without the use of medicine."

He has two children, the eldest a son, now eight years of age, who has had spasms since he was five years of age.

Such is the history of this unfortunate epileptic, told as faithfully as I am able to tell it; and I feel all the more sorrow for him because of his pride, which, even yet, leads him to try to conceal his condition under a most gentlemanly deportment.

REVIEWS AND BOOK NOTICES.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. First Series. 8vo, pp. 688. Boston, Little & Brown, 1871.

In proceeding to briefly notice the papers composing this portly and handsome volume, we shall first invite attention to those treating of medical subjects.

Cases of Pneumonia. By J. A. BORLAND.—From this paper we learn that during the five years from the opening of the Hospital on June 1, 1864, to June 1, 1869, 190 cases of pneumonia were treated in it. The larger number occurred in males and in foreigners, and as many as 107 in persons whose occupations did not involve exposure to all kinds of weather. The average age of the males was 31 yrs. 5 mos.; of the females, 30 yrs. 7 mos. The 190 cases of pneumonia

were one-nineteenth of the whole number of cases admitted during the same period of time. The smallest number of cases were received during June (5) and July (5), then rising steadily through August (9), September (10), and October (15), until the chills of November (20) raised the point of development to that resulting from winter's cold (62), and the maximum being reached during the existence of the combination of cold and dampness as brought about in our spring weather (64). 107 were pure cases of pneumonia; 83 were complicated with other forms of disease. The uncomplicated cases averaged nearly eleven days sick before entrance, and twenty-three days and a half under treatment in the hospital. The complicated cases averaged a little over ten days sick before entrance, and thirty days' residence in the wards.

The treatment adopted was essentially that of Dr. Bennett, of Edinburgh, and known as the restorative treatment. In a number of cases wine of antimony was given in minute doses of six or eight drops every hour. Dr. Borland says of it, "Our cases treated in this way have been very satisfactory; no nausea or depressing effect of any sort has been observed, but the medicine has acted like a true tonic." The mortality in the uncomplicated cases was ten, or one to every ten and one-seventh cases,—a result which the author admits is not comparable with those attained by Prof. Bennett; and the question at once suggests itself to his mind whether pneumonia is a severer disease in this country than in Scotland. We are unable to answer this question fully, but, although having ourselves strong prepossessions in favor of the restorative treatment, we know that success such as Dr. Bennett claims for it has never been obtained in this city. The histories of the 190 cases are given in a tabular form at the end of the paper.

Treatment of Acute Rheumatism. By JOHN G. BLAKE.—This paper is also accompanied by a table giving some details of 300 cases of acute rheumatism treated at the Boston City Hospital, the object of the writer being to contrast the results obtained by the alkaline and the non-alkaline treatment. In 125 cases treated with large doses of the alkalies, the average stay in the hospital was 25 days, and cardiac complications were developed in 18. In 175 cases treated in other ways, the average stay was 35 days, and cardiac complications were developed in 18. Two deaths occurred among those treated with the alkalies, although the alkalies were given in the doses recommended by Dr. Fuller. These results are certainly not much in favor of the alkaline treatment.

Treatment of Skin Diseases. By HOWARD F. DAMON.—The department for the treatment of skin diseases was instituted April 11, 1868, and between this date and June 1, 1869, 900 patients sought relief there. The purpose of the author in writing this paper is to present "the number, sex, and age of those affected, together with the approximate duration and causes of the different cutaneous diseases." It is not easy to make an analysis of such a paper, and we shall not attempt it. The author thinks it very likely that climate or geographical position, together with the peculiar habits of a people, has much to do with the character and prevalence of cutaneous disease, inasmuch as the cutaneous covering must be the first part of the system to suffer from the vicissitudes of climate. The contents of the paper show that Dr. Damon has abundant opportunities for the study of diseases of the skin, and that he makes good use of them. This paper is illustrated by several plates.

Typhoid and Typhus Fevers. By J. BAXTER UPHAM.—The tables appended to this paper present, in a condensed form, the history of all the undoubted cases of typhoid and typhus fever which have been treated in the Hospital during the first five years from its foundation. The number of cases of typhoid fever treated was 152. The treatment adopted was mainly expectant. The mortality was in the ratio of 1 to 7 $\frac{2}{3}$ cases. Nearly half the cases occurred during the autumn months. In regard to the rose-colored spots, Dr. Upham says that the average time at which they were first seen in 65 cases, in the histories of which this fact was particularly noted, was between the twelfth and thirteenth days.

The number of cases of typhus, of which a tabular history is here given, is 38, and of this number 10 died. The treatment consisted essentially in the administration of beef-tea and stimulants.

Peri-Uterine Inflammation. By A. D. SINCLAIR.—This is a very valuable paper, containing as it does the histories of no fewer than twenty-two cases of this affection, together with one of peri-uterine hematocoele. The disease is said to occur most frequently after procured abortion, in women subject to menstrual irregularity, in the subjects of gonorrhœa and syphilis, and in those having had operations about the vagina, the cervix, or cavity of the uterus.

Our notice of the medical papers in this volume has been thus far almost entirely analytical, but we have not made it so because we have nothing to say in their praise. On the contrary, we think that Drs. Upham, Blake, Borland, Damon, and Sinclair have made valuable contributions to the histories and statistics of the different diseases of which they have written. It does indeed seem to us that undue prominence is given to the tables which accompany the papers on rheumatism, typhoid and typhus fevers, and pneumonia; and the idea will probably occur to others, as it has already done to ourselves, that from such a wealth of material much more elaborate papers might have been readily produced.

In proceeding next to speak of the surgical papers, we shall notice one by Dr. Bowditch on perinephritic abscess, a disease occupying a middle ground, coming primarily under the care of the physician, who has, however, eventually to invoke the surgeon's aid. Dr. Bowditch narrates nine cases, and lays great stress upon the importance of an early operation for the evacuation of the pus, thinking that if the incision or puncture is made soon the result is almost uniformly successful. He advises an exploratory opening as soon as the diagnosis is made, even though pus has not fully formed, and that the wound should be kept open by a tent.

This is a most unusual number of cases, of an affection comparatively rare, to have occurred within the experience of a single person. Were the diagnosis made by less competent authority, and not proved correct by the post-mortem evidences in the fatal cases, we could not repress some of that doubt which ever lurks in the critic's breast. We are not surprised to learn that Dr. Bowditch found some difficulty in persuading a surgeon to make an opening in one or two of his cases, and we think that most surgeons, if called upon to perform such an operation, would feel that it was eminently an exploratory one. The difficulty is to feel certain of our diagnosis where both rational and physical symptoms are so obscure; for, if well assured of the presence of pus, there would be no need of hesitation in making an incision which would not involve the peritoneum. The paper suggests the whole question of diagnosis in abdominal abscess, and is a valuable contribution to our knowledge upon the subject.

Twenty-eight excisions of joints have been performed during the five years the Hospital has been in operation. Of these, ten have been of the elbow, one of the wrist, eleven of the hip, and six of the knee, with a total mortality of 43 per cent. At the elbow, four were for caries, of which one recovered after amputation, and three were cured with good motion and without sinuses. Of six cases where the operation was done for compound fracture, three ultimately required amputation, of which one died, and two recovered and one died without further operative interference. The two who recovered without amputation were aged thirteen and thirty years, and were in hospital respectively sixty-three and one hundred and thirty-four days, when they were discharged, with good motion and without sinuses; and their appearance is shown by a lithograph. The wrist was excised once for caries with every prospect of success, but the case terminated fatally after ninety-eight days, from uræmia following gunshot wound of the kidney. At the hip all the operations were for disease; two of the number were upon adults, and were both followed by a fatal result. Of the nine done upon children, seven recovered, and two died from tubercle in other parts. Dr. Cheever thinks that in cases of caries the operation is unaccompanied with much shock, is not dangerous in children, and that the relief is equal to that experienced from the opening of an acute abscess. In hospital cases he advises an early operation,—viz., as soon as by grating or through the formation of an abscess we are certain of the existence of caries; but for patients in the better walks of life, or those surrounded by favorable hygienic influences, he does not recommend an operation save as a *dernier ressort* when it becomes evident that

the patient will be worn out with the affection, thinking that the chance of recovery with a useful limb by care and nursing is quite as good without as with an operation. In all the cases recorded in this report the incision was V-shaped, and the flap was strapped back until the wound was well filled with granulations, thereby insuring thorough drainage. The gouge does not appear to be in much favor with the surgeons of the Boston City Hospital in these cases, they apparently preferring to trust to exfoliation for the removal of carious patches on the bones of the pelvis; and their success seems to justify their views. In one case the great trochanter was left, and, though it protruded through the wound so as to require extension by a weight for its reduction, Dr. Cheever expresses himself as much pleased with the result. The shortening seems to be about equal to that following spontaneous cure. In the knee there were six operations done,—all for disease. Of these two recovered after amputation of the thigh, and one child succumbed to pyæmia after removal of the limb. One child had firm union of the bones, and the wound soundly healed in 275 days; another was discharged at the end of 389 days, but the union of bone was still insecure at the expiration of three years. One adult recovered after 273 days, without sinus and with partial bony union.

Did our space permit, we should much like to notice in detail the remaining surgical papers in this volume, with the ophthalmic and aural reports. We have been especially interested in a paper, also by Dr. Cheever, upon the removal of naso-pharyngeal polypi by temporary displacement of the superior maxilla; but in the narrow limits afforded us it is impossible to do more than draw attention to the book as an evidence of public spirit on the part both of the medical staff and the trustees of the Hospital. We find ourselves wishing that the managers of similar institutions throughout the land could be familiar with the work before us, that their pure minds might be stirred up to emulate the example so well set before them by their Boston brethren. Were we disposed to find fault, we should say that the book is too handsome, being gotten up in such a style, both as regards paper, printing, and illustrations, as may tend to discourage others from attempting to follow it even *e longo intervallo*.

A SKETCH OF THE EARLY HISTORY OF PRACTICAL ANATOMY.

The Introductory Address to the Course of Lectures on Anatomy at the Philadelphia School of Anatomy. By WILLIAM W. KEEN, M.D. Published by the Class. 8vo, pp. 31. Philadelphia, P. Madeira, 1870.

Introductory lectures treating of historical subjects are always interesting, not only to the class for whose members they are expressly prepared, but also to that larger audience they reach by publication. That Dr. Keen's class should have requested the printing of his recent admirable address speaks well for their judgment. After a few words of welcome, our lecturer becomes lost in the historian, who performs the difficult feat of compressing within thirty-one pages a history of practical anatomy, from Herophilus to the Pennsylvania Anatomy Act. He gives us an occasional break in the encyclopedic solidity of his style, to recite the pathetic ballad of *The Invisible Girl*, or to tell anew of that eighth wonder of the world, the Ruyschian Museum. The elaborate references and annotations visible on every page show that the labor of their preparation has been one of love. We would have been pleased had the space devoted to "how to prepare a mummy"—which process can scarcely be considered a branch of practical anatomy—been devoted to a more extended account of the history of anatomy in this country. The episode of Chant Street alone would, we opine, have been of unusual interest to the class.

THE GYNÆCOLOGICAL RECORD. By JOSEPH G. PINKHAM, A.M., M.D. 4to. Boston, J. Campbell, 1870.

This "book of blank forms," as the author modestly calls his work, cannot fail to attract all who are interested in the advancement of this branch of medical science. It gives a most convenient and readily-completed basis for a full and satisfactory account of a class of cases which, more than any other, need accurate and scientific study and description. No man, no matter how busy, can, with one of these Records in his hands, plead want of leisure to record his cases; neither

can he fail, if he answers carefully and honestly each point in the history, symptomatology, and treatment, to put on record a case which will be most valuable for future reference, either for himself or others.

The book only allows space for twenty-five completed cases; but if these cases be well selected and carefully kept, even should only one book be filled by each practitioner, it would make a contribution to Gynecology which, before many years, would enable us to settle definitely many points in the natural history and therapeutics of uterine disease which are now most obscure and unsettled.

We are glad to see that the author has adopted the diagrammatic method of recording the size and position of morbid growths, alterations in the normal position of the parts, and other gross changes.

Although the character of the work does not admit of any great display of ability or originality, yet we must cordially thank Dr. P. for the complete and admirable manner in which he has accomplished the object he had in view,—"An Aid to the Busy Practitioner."

SYPHILIS OF THE NERVOUS SYSTEM. By E. S. KEYES, M.D. Reprinted from the *New York Medical Journal*, November, 1870.

The thirty-four carefully recorded cases which are here narrated are valuable from the fact that they have all been seen and treated in the course of private practice or encountered in consultation with other physicians,—a point to be appreciated by observers laboring in hospitals, who depend for their knowledge of the previous condition of their cases upon a very questionable veracity. The following are among the more striking conclusions of the author:

That nervous symptoms depending upon syphilis may arise within the first few weeks after an infecting chancre, or at any period later during the life of the individual.

That mydriasis, existing alone, or with other nervous symptoms, without positive disease of the eye, is presumptive evidence of syphilis.

That the iodide of potassium pushed rapidly to toleration, unless the symptoms subside before that point is reached, is the main outline of treatment.

BOOKS AND PAMPHLETS RECEIVED.

On Diseases of the Spine and of the Nerves. By Charles B. Radcliffe, M.D., John N. Radcliffe, J. Warburton Begbie, M.D., Francis E. Anstie, M.D., and J. Russell Reynolds, M.D. 8vo, pp. 196. Philadelphia, Henry C. Lea, 1871.

On the Wasting Diseases of Children. By Eustace Smith, M.D. 8vo, pp. 266. Second American from the second revised and enlarged English edition. Philadelphia, Henry C. Lea, 1871.

The Raising and Education of Abandoned Children in Europe, with Statistics and General Remarks on the Subject. By Abraham Jacobi, M.D. Pamphlet, 12mo, pp. 43. New York, Bellevue Hospital Printing-Office, 1870.

The Relations of the Medical Profession to Modern Education. By Edw. S. Dunster, M.D. Pamphlet, 8vo, pp. 25. New York, D. Appleton & Co., 1870.

Proceedings of the Convention for the Reorganization of the Medical Society of the State of California, and of the First Annual Meeting: Together with the Constitution, Rules of Order, and Code of Ethics of the Society. Incorporated November 1, 1870. Pamphlet, 12mo, pp. 13. San Francisco, John H. Carmany & Co., 1870.

Retention of Urine Depending on Stricture. By Alex. W. Stein, M.D. Pamphlet, 8vo, pp. 16. Read before New York Medical Journal Association, December 9, 1870. New York, Robert J. Johnston, 1870.

Notes on the Physiology and Pathology of the Nervous System: Sclerosis of the Brain and Spinal Cord. By Mere-

dith Clymer, M.D. (Reprinted from *New York Medical Journal*, May, 1870.) 8vo, pp. 53. New York, Appleton & Co., 1870.

Vaccination and its Protective Power in the State of West Virginia. By J. C. Hupp, M.D. 8vo, pp. 12. Wheeling, John Frew, 1871.

OBITUARIES.

DR. JOHN RHEA BARTON, who died in this city on the first day of the new year, at one time occupied a very prominent position among the distinguished surgeons of this country. His earlier and more mature manhood was devoted to active surgical practice, and his name at this day is associated with surgical accidents and appliances, in which he displayed a ready skill and ingenuity. So many years have elapsed since he retired from the active pursuit of his profession, that his name will be familiar to the student and the practitioner of to-day as associated with Barton's fracture of the lower end of the radius, Barton's bran dressing for fractures of the leg, Barton's bandage for fractured jaw, etc., rather than from any recent contributions to the science or improvements in the art of surgery. It is due to his memory, as well as to the medical world which in his honorable and useful professional career he adorned, that some facts connected with the history of his life should be put upon permanent record.

Dr. Barton was born in Lancaster, in April, 1794, and was therefore at the time of his death in his seventy-seventh year. He was the son of William Barton, a lawyer of that town, and nephew of Prof. Benjamin Barton, one of the first botanists of this country, and Professor of Materia Medica in the University of Pennsylvania. His brother, Dr. W. P. C. Barton, was at one time at the head of the U. S. Naval Bureau. It was the custom in those days, instead of electing the resident physician of the Pennsylvania Hospital from recent graduates, as at the present day, to regularly apprentice young men, commencing the study of medicine, for five years at that institution, their clothing being the sole expense to which they were subject, and their graduation at the University took place as near as possible to the expiration of that period. Rhea Barton must have entered upon his indentures about 1813, for he graduated in 1818, in a class honored by the names of Profs. Hugh L. Hodge and George B. Wood, Dr. D. F. Condie, and others whose after-careers shed lustre on their profession.* Some of these gentlemen, immediately before their mutual graduation, were brought into frequent contact and intimacy with the rising young surgeon, whose mechanical genius and ingenuity, remarkable even at that day in his manipulations and special management of fractures, were soon to be developed in active surgical experience with the world. The *internes* of the hospital at the same time were Drs. Benjamin H. Coates and Warwick Miller of Alexandria, the latter for some time deceased. Among his contemporaries, though graduates of a year or two later, were Drs. René La Roche, Isaac Hays, and John K. Mitchell. He practised his profession with remarkable success for over twenty years, finally retiring from active practice in 1840, though for years afterwards his opinion was frequently sought by his professional colleagues, who had seen so many demonstrations of his rare surgical skill. Many of his brilliant operations were performed while on duty as attending surgeon at the Pennsylvania Hospital, but in private practice he was not less distinguished. He never contributed largely to periodical medical literature, or gave to the world systematic treatises on surgical subjects. He was too busy with the arduous responsibilities and cares of practice to resort to the frequent use of the pen; though his operations and methods of treatment are still quoted. His memorable operations are at this day difficult to recall, but his resections for ankylosis, his modes of reducing fractures, etc., were strikingly original and successful.

* The surgeons in attendance at the hospital at that time were Drs. Physick, Dorsey, Hewson, and afterwards Dr. Hartshorne; the attending physicians, Drs. Otto and Park.

EDWARD RHOADS, M.D.,

DIED JANUARY 15, 1871, AGED 29 YEARS.

THE subject of this brief notice was born in Philadelphia on September 29, 1841. His early education was conducted at his parents' home until the winter of 1853, when, at the age of twelve years, he was placed at the school of the Brothers Smiley, where he remained nearly two years, preparing for his collegiate course. Even at this early age he evinced both the mental and moral qualities which afterwards forcibly characterized him. He was especially distinguished, while a boy, by his fondness for natural objects and for the study of natural science. The same strongly-marked tastes showed themselves during his academic course at Haverford College, where he was admitted in 1855. He acquired a very thorough knowledge of Botany during his hours of leisure there; while his mastery of the ordinary branches of collegiate study was uniform and complete. In 1859 he graduated, with the highest distinction, at the head of his class. Unfortunately, soon after leaving college, a strong rheumatic diathesis manifested itself in a severe attack of articular rheumatism, complicated with endocarditis. He recovered after a long and hard struggle, but with a positive degree of mitral valvular disease.

The story of his professional life may be briefly told. He commenced his medical studies in the autumn of 1860, matriculating at the University of Pennsylvania. With him medical science was eminently the study of his choice; and he manifested such facility in mastering both its details and general principles as might have been expected from the assiduous devotion with which he pursued it, as well as from the well-trained powers of mind which he brought to the quest. He graduated with eminent distinction in March, 1863. Immediately after graduation he gained, by competitive examination, the position of Resident Physician in the Philadelphia Hospital, and on leaving there, in April, 1864, was elected to the corresponding position in the Pennsylvania Hospital, where he passed eighteen months. It is difficult to imagine one more fully prepared for his work, or more fitted to achieve the highest distinction both as a medical author and practitioner, than he was at this time. Shortly before leaving the Pennsylvania Hospital, however, a second attack of rheumatism seized him. This time he suffered (in addition to the articular inflammations) from a renewal of the old endocarditis, associated with pericarditis and left-sided pleurisy.

He was desperately ill for many weeks, but slowly recovered, and, so soon as his strength permitted, went abroad (in November, 1865). He spent about eight months in travelling in England and on the continent, and returned greatly improved in health, though showing unmistakable evidences of serious organic disease of the heart. It is possible, though far from being even highly probable, that, had he chosen a quiet, inactive life, he might have reached a much more advanced age; but such a course was utterly hostile to his vigorous and ambitious character.

Very soon after his return (in the summer of 1866) he was elected one of the visiting physicians to the Philadelphia Hospital. He entered upon the duties of this position with the utmost zeal and enthusiasm, and throughout his connection with the hospital devoted a large amount of time, and a larger amount of exertion than he could well afford, to the care of his patients, and to the various measures undertaken for the improvement of the organization of the hospital. His connection with this institution continued until a few weeks before his death, when, becoming convinced of the impossibility of ever re-entering upon duty in its wards, he resigned his position. He also commenced medical teaching, associating himself with several colleagues in the work of examining medical students, and delivered several courses of lectures on medical chemistry, especially in its relation to urinary diseases. He took part in the clinical teaching at the hospital, and delivered weekly lectures during six months of each year; while, at the same time, he formed private classes for more thorough clinical instruction in the wards. For some years before his death, Dr. Rhoads had paid special attention to the study of diseases of the chest, designing to devote himself more particularly to that branch of medical practice; and in the spring of 1870 he was chosen, by the Faculty of the University of Pennsylvania, to fill the newly-created position of Lecturer on Physical

Diagnosis. He delivered the first portion of a course on this subject during April and May of the past year, when his last illness caused him to relinquish teaching, never to resume it. As a teacher he was singularly clear and impressive; and his earnestness of manner and evident sincerity and perfect truthfulness made his statements carry great weight with them. His style somewhat lacked vivacity, and the voice in which he lectured was, at times, monotonous; and, in addition, the constant dyspnoea from which he suffered during the last three or four years, made painfully evident the effort which it cost him to speak continuously for an hour to a large audience. He was uniformly beloved and esteemed by the students with whom he came in contact, and possessed the happy faculty of kindling in their minds an enthusiasm for medical science kindred to his own.

For several years before his death his private practice increased quite rapidly; and his public positions began to bring him forward, also, as a consultant. How tender, devoted, and skilful a practitioner he was, many grateful patients can testify. Dr. Rhoads was elected a member of many of the learned medical societies in this city, among which may be mentioned the College of Physicians, Academy of Natural Sciences, American Philosophical Society, and Pathological Society. He held offices in several of these, being recording secretary of the College of Physicians, and treasurer of the Pathological Society. It will readily be understood that with these numerous and onerous duties devolving upon him, in connection with the public positions which he held, there was but little time to devote to literary labor. He furnished numerous short papers to the proceedings of the Pathological Society, and aided Dr. J. F. Meigs in the preparation of an elaborate memoir on "The Morphological Changes of the Blood in Malarial Fever," which was published in the *Pennsylvania Hospital Reports*, vol. i., 1868. He also published (*id. op.*), in conjunction with Dr. William Pepper, the results of an investigation into the fluorescence of the tissues of the body, considered especially in connection with malarial diseases and the action of quinia. At the time of his decease, he left many valuable records of observations made at the Philadelphia Hospital, which would doubtless have served, had his life been spared, as a basis for important clinical treatises. He also wrote several able reviews, which appeared in the *American Journal of the Medical Sciences*, and in addition several addresses and articles on miscellaneous or religious subjects, none of which have been, to our knowledge, published. His style as a writer was clear, concise, and elegant; his diction was remarkably pure, and displayed a great familiarity with the structure and resources of the language. It is to be regretted that he left behind him no original work at all worthy of his powers as an observer and author. When, in the spring of 1870, it was determined to establish a semi-monthly medical journal in Philadelphia, its editorial management was intrusted to the care of Dr. Rhoads by the unanimous choice of the executive committee. He was enabled only to make the preliminary arrangements for the publication of THE MEDICAL TIMES, when his rapidly failing health compelled him to relinquish the helm which he could have guided with such consummate judgment and skill. The loss which this journal thus sustained, while still in embryo, can be fully appreciated only by those whose intimacy with him rendered them acquainted with the rare excellence of the qualities which he possessed for editorial labors.

We have already alluded to the fact that for about ten years before his death he had suffered with organic disease of the heart. Frequently during this period he presented, from the effects of overwork, alarming symptoms of disturbance of the circulation. Too rarely were any such admonitions heeded by him, and the call of duty usually summoned him back to active work ere he was sufficiently refreshed and recruited by repose. The spring of 1870 was to him a season of incessant toil and anxiety. Philadelphia was visited by a grave epidemic of relapsing fever, and the wards of the Philadelphia Hospital were overcrowded with hundreds of cases of the most severe form of the disease. After daily exposure for two months to the concentrated contagion, Dr. Rhoads contracted a mild attack of the fever in the early part of May, and, soon after convalescing from this, was attacked for the third time with articular rheumatism, which was soon followed by a recurrence of endo-pericarditis. For several weeks his

life was almost despaired of, but the violence of the attack finally subsided, and during August he so far convalesced as to become able to bear the journey to West Chester. This improvement was, however, delusive and temporary. He never became able to use any exertion, and was never free from harassing and wearying dyspnoea. In October, the vigor of the heart failed rapidly, and symptoms of great circulatory embarrassment soon showed themselves. From that time, until January 15, 1871, the date of his death, his strength gradually failed, and œdema steadily increased, towards the close becoming associated with intense pulmonary congestion. He suffered constantly and most severely; and yet his serenity of spirit, his patience and perfect submission, his thoughtfulness and loving tenderness for all who were dear to him, never failed him for an instant until the very close.

On post-mortem examination, the heart was found enormously enlarged, weighing 35 ounces avoirdupois; the cavities of the right side were moderately dilated, while those of the left side, and especially the left auricle, were enormously so. The aortic valves were thickened and rigid, but the chief lesion was seated at the mitral valve, the leaflets of which were thickened, rigid, and fused with each other. There were extensive pleuritic adhesions, and complete obliteration of the pericardial sac. The brain was large and well formed, and weighed 57½ ounces avoirdupois.

In person Dr. Rhoads was of medium height and of strong build. His constitution, with the exception of the rheumatic diathesis which was so deeply impressed upon it, was vigorous, and capable of enduring the most severe tasks which could be inflicted upon it. His intellect was of a very high order, and was characterized less by any marked original or inventive power than by a rare development of the acquisitive, critical, and judicial faculties. The range of his intellectual sympathies was wide; his desire of acquiring knowledge was ardent and insatiable; his power of memorizing and correlating facts was very great; and his opinions were always marked by an unusual breadth of view, and evinced a clear, temperate, and well-balanced judgment.

He was no less remarkable for his traits of character than for his mental powers. From his earliest childhood he presented evidences of an impulsive, affectionate nature, overflowing with sympathy with all forms of suffering, and of a genial, social disposition, conjoined with a grace and charm of manner which won the hearts of all with whom he came in contact. In later years his strong emotions were under a rare degree of self-control, his sympathies were expanded by a deep love of humanity, and his personal attractions were enhanced by high culture and the results of foreign travel and a wide experience of the world.

He was in the fullest sense of the word a Christian, one who strove incessantly to govern every word and action in conformity with the divine law, and whose daily life showed forth, most consistently and forcibly, the indwelling grace of God. None met him and failed to be deeply impressed by the force of his example and by his character and powers. From his school-days throughout his life, he exerted an unusual degree of personal influence over his companions; and this influence, it may safely be said, was uniformly exercised for good.

We can but mourn that one so fitted, by intellectual endowments, high culture, and rare force and purity of character, to adorn the highest positions in the profession, should so prematurely (as it seems to us) have been taken away from our midst.

GLEANINGS FROM OUR EXCHANGES.

CRANIOTOMY.—Prof. A. R. Simpson, in his introductory lecture, states (*Edinburgh Med. Jour.*, December, 1870, p. 491) that, whereas formerly, in craniotomy, efforts were expended in the breaking down and removal of the vault of the cranium, the practitioner now exerts his powers to more purpose in diminishing the base, where the chief obstruction lies. Hence he can now apply his art with a degree of ease to himself and safety to the woman which in former days could not have been attained. There is a preparation in the Obstetrical

Museum of the University of Edinburgh of the remains of the skull of a child which was delivered by Dr. James Hamilton. The arch of the cranium had been broken down and removed bit by bit, till only the base was left. "But, as it is precisely here where the difficulty lies, we do not wonder," says Prof. Simpson, "to hear Dr. Hamilton relate how, after having opened the head of this infant one midnight, he proceeded between nine and ten o'clock next morning to the extraction, and was kept at work for upwards of four hours, till at last he 'was literally obliged, from exhaustion, to be carried home in a sedan-chair at half-past two in the afternoon.' The improvements that have been effected in the instruments for performing craniotomy, and, above all, in the cephalotribe, give us the assurance that such a scene is not likely to be again enacted."

PREPARATIONS OF CONIUM.—Dr. Harley (*London Practitioner*, December, 1870) commends as the cheapest and most effective preparations of conium a tincture and spirituous extract made from the unripe seeds of either annual or biennial plants. He advises medical men to raise in some waste spot in their garden a dozen plants, which will yield them a pound of green fruit, from which, with very little trouble, may be made a tincture stronger than any juice that can be produced, and an extract of which three grains would produce decided effects in most persons.

POISONING BY HYPODERMIC USE OF MORPHIA.—Dr. Fred. D. Lente (*New York Medical Journal*, December, 1870) details a case in which most alarming symptoms followed the injection of a grain of morphia in two doses twenty minutes apart. The symptoms came on very suddenly some minutes after the last injection, and were the ordinary ones of opium-poisoning. There was complete insensibility, paralysis of sphincters, etc.; respirations only 3½ per minute; pulse 150-60, mostly of good strength. Atropia was used, but not in sufficient quantity to have any influence. The most interesting point in the case is that, after vesication of the chest by Granville's lotion, the respirations rose immediately to 4½ per minute, and in half an hour to 6. The woman finally recovered.

INTRAOCULAR CYSTICERCUS.—The following three interesting cases of intraocular cysticercus are reported in *Schmidt's Jahrbücher*, Bd. 148, No. 10, October, 1870. The first two were observed by Hirschberg (*Virchow's Arch.*, xlv. 3, 4, p. 509, 1869, and *Arch. f. Augen- u. Ohrenheilk.*, i. 2, p. 1, 1870), the last by Th. Sämisch (*Mon.-Bl. f. Augenheilk.*, viii. p. 170, Juni, 1870).

1. The affection involved the right eye of a woman twenty-six years of age. At first there could be seen in the very tense, entirely sightless bulb, behind the opacity of the lens, and at one side, a vascular prominence, which condition soon afterwards, on account of an effusion of blood into the vitreous humor, was no longer under control. The eyeball was removed and hardened, and its examination furnished the following: Size and shape normal; optic nerve, cornea, and sclerotic not altered; anterior chamber contracted; pupil and iris covered with a delicate, membranous, yellow exudation; the ciliary body on the sclerotic side covered over with a thick, gelatinous layer; the choroidea thickened; the retina entirely dissected off; the remains of the vitreous humor penetrated with membranous masses which were extended over the posterior part of the capsule of the lens and the contiguous surface of the ciliary body, and filled up with a small effusion of blood. The space between the detached retina and the choroidea was filled up with a soft, yellowish mass, composed partly of pure pus and partly of fibrous tissue, which again enclosed in itself a cavity without a definite boundary. The cavity was situated in the outer half of the bulb, and extended below to the deepest part of the eyeball and forwards as far as the ora serrata. It was 11 millim. (.43 in.) long, 5 millim. (.19 in.) broad, and 4 millim. (.15 in.) deep. In it there was a wrinkled mass, which represented a cysticercus-vesicle of uncommon size,—about 15 millim. (.59 in.) in diameter. The head was retracted, and the vesicle studded with small white points.

2. A robust man had been blind in the left eye for two years, and during the last three days the organ was actively inflamed. It was absolutely amaurotic; the episcle-

rotica deeply injected; the iris thickened and discolored; the margin of the pupil attached to the lens, the latter opaque. The bulb was painful upon pressure in the ciliary region, but not opaque. As it could not be ascertained that the inflammation had supervened upon a catarrh, and as a tumor would have incited an inflammation much sooner than after the lapse of two years, the diagnosis of cysticercus was decided upon as the most probable. The patient himself did not suffer from tapeworm, but his wife had repeatedly passed segments. The enucleation of the bulb confirmed the diagnosis. The iris, ciliary body, and choroidea were thickened; the remains of the vitreous humor behind the opaque lens were traversed by fine membranes, and contained on one side a large blood-coagulum. The retina was detached, and behind it there was a vascular, soft, grayish and yellowish tissue, in which a smooth-walled cavity was observed. It contained a cysticercus-vesicle, 14 millim. long and 8 millim. broad, with a well-developed neck and head, upon which there were four sucking-disks containing abundant pigment. From its state of good preservation, it must be admitted in this as in the preceding case that the parasite was still living at the time of the enucleation.

3. A woman, aged 38, had noticed, in the spring of 1860, a diminution of the power of vision in the right eye, without any inflammation. In the commencement of 1861 the sight was entirely gone. Cataracta reducta and iridochorioiditis, with, however, normal tension and absence of symptoms of irritation, were ascertained in the year 1867. In the spring of 1870, for the first time, inflammatory symptoms made their appearance: the upper lid was swollen, the episclerotic reddened, the iris discolored and adherent to the lens; in the anterior chamber there was an effusion of blood. As the left eye likewise soon exhibited inflammatory symptoms, the right bulb was extirpated. It had the normal diameter of $22\frac{1}{2}$ millim. (.88 in.), and was immediately opened in the horizontal meridian; in so doing the knife encountered a hard mass, which had to be divided with the scissors. The rest of the cut was completed with the knife, which caused a somewhat viscid fluid to escape. The bulb was divided by a partition lying in front of the equator into an anterior and posterior half; the latter was again divided by a second partition—having its origin in the optic nerve—into two lateral cavities, the smaller one of which was situated towards the nose. In the larger cavity lying towards the temporal region there was situated a cysticercus-vesicle about 7 millim. (.27 in.) in diameter, which had already been cut in opening the bulb. The crown of hooks and the four sucking-disks could be plainly seen upon the retracted head. The wall of the cavity which enclosed the parasite consisted of fibrous tissue, and was intimately connected with the choroidea; posteriorly there was developed a sheet of bone 10 millim. (.39 in.) long and 6 millim. (.23 in.) broad. The choroidea was moreover atrophied throughout, and the retina detached in the form of a thin string, which was merged into the second and smaller septum without any definite boundary-line.

The number of reported cases of dissections of intraocular cysticerci has amounted to seven,—the preceding three cases included. The earlier cases were observed by A. von Graefe, Soelberg Wells (Bader), A. von Graefe (Schweigger), and Jacobson (Recklinghausen). The number of cases of intraocular cysticerci observed in life is much larger (*Schmidt's Jahrb.*, cii. 221, cxxxiv. 320, cxxxv. 76, 205, *Arch. für Ophthalmologie*, Bd. ii. 1, 2, and *American Journal of the Medical Sciences*, N. S., vol. xxxiii. p. 468). The affection is, apparently, exceedingly rare in this country.

TUBAL PREGNANCY (SPIEGELBERG: *Arch. für Gynäkologie*).—The only authentic case of tubal pregnancy in which the foetus attained maturity is related by Saxtorph, and the history of this case is not sufficiently minute to be made use of: so that the full clinical report of a similar case which occurred in the practice of Spiegelberg is of great interest. The patient was a peasant woman, 44 years old, pregnant for the fourth time, and had reached the end of gestation without any abnormal symptoms, when fugitive labor-pains were soon followed by convulsions, coma, rapid prostration, and death in a few days. The urine was albuminous, and contained urinary casts. A post-mortem examination disclosed a fully-developed

dead foetus, enclosed in membranes, and lying in a musculo-membranous sac which was formed by the distended and developed Fallopian tube, the placenta having its attachment anteriorly. A minute microscopic report by Waldeyer confirmed the opinion that it was only the tube which had taken part in the development of the sac. Bundles of muscular tissue were found, the tissue of the ovary recognized microscopically, and, by careful manipulation, the folds of the right broad ligament were separated from one another up to the point where the sac commenced, which thus corresponded with the position occupied by the Fallopian tube, while a probe passed from the angle of the uterus into the sac along a short canal. Spiegelberg explains the fatal termination of the case by the eclampsia of the mother causing the death of the foetus, subsequent separation of the placenta, hemorrhage into the sac, which was already distended to its utmost capacity, rupture, and death from peritonitis. The diagnosis was not made during life, owing to the normal course of the pregnancy, and the fact that the tumor corresponded so closely in position and size with the gravid uterus.

TETANUS NEONATORUM (*Jahrbuch f. Kinderheilkunde*, vol. iii., 1870).—Bohn brings forward a new theory with regard to Tetanus Neonatorum, opposed to that of Schöller, viz., that this disease is due to irregular cicatrization or ulceration of the navel, and hence never occurs earlier than from one to five days after the detachment of the cord. In the town of Edling 136 cases occurred in the practice of one midwife. Of these cases 37 were observed by the physicians of that place, and in no instance was there any abnormal condition of the umbilicus. This led to an investigation, and it was found that this midwife had lost the power of appreciating the temperature of the water in which she immersed the child after birth, and by actual experiment it was found that on these occasions she habitually used water from 87° to 95° . According to Bohn, this tetanus is due to irritation of the sensitive cutaneous nerves, which produces reflex muscular contraction. Exposure to extremes of temperature, irritating gases, etc. may furnish this exciting cause; and hence the prevalence of this form of tetanus in Iceland, where the intense cold and smoky confined atmosphere of the dwellings, acting on the sensitive surface of the infant, combine to produce this disease. He does not, however, deny that exceptionally any local cause may also act as the source of irritation, as ulceration of the navel, circumcision, etc.

CAUTERIZATION IN DIPHTHERIA.—In the 48th *Versammlung Deutsche Naturforscher und Aerzte*, Dr. Schüller stated that he had entirely abandoned cauterization of the pharynx, larynx, or conjunctiva in diphtheria. In numerous cases he had, as a crucial experiment, cauterized only one side of the fauces, and he had always been led to the same conclusions:

1st. That the membrane remained attached longer on the side which he had cauterized than on the other.

2d. That even the most energetic application of nitrate of silver failed to arrest the reproduction or to prevent the extension of the membrane.

3d. In some cases serious tumefaction and inflammation of the cervical lymphatics followed the application of the caustic.

In these views he was supported by Ebert, Stiebel, Cohen, Rinecker, and others, who direct the use of small pieces of ice to be constantly allowed to melt in the mouth, and employ a gargle of potass. chlor., alcohol, potass. permang., carbolic acid, etc.

EPIDEMIC OF CHOREA MINOR IN PRAGUE (STEINER: *Jahrbuch für Kinderheilkunde*, vol. iii.).—Professor Steiner reports an epidemic of chorea minor during the early winter months of 1870. He himself had 19 cases under observation, in none of which there was any possibility of contagion by imitation. In a previous paper on chorea, based on 52 cases, he developed his theory that this disease is the result of spinal irritation, and may be caused by various transitory or permanent irritants acting on an excitable nervous system. In this epidemic he finds additional evidence in favor of this theory, the exciting cause being the unusually cold and changeable winter weather, while the predisposing cause must be sought for in the delicate constitution and nervous excitability of all the children affected, 18 of whom were girls; the greater frequency of the disease among females being apparent, as was the case in the 52 cases previously reported,

only 12 of whom were boys. In 5 of the 19 cases which occurred epidemically, rheumatism or endocarditis with valvular lesion was found; so that if we regard this epidemic as rheumatic in character, we must admit that the meninges of the cord may be attacked, while the muscles, articulations, heart, etc. remain free. Potass. bromid. proved of no value; and again Professor Steiner praises the use of Fowler's solution in small ascending doses.

DEATH FROM SULPHURIC ETHER.—In the *Boston Medical and Surgical Journal* of December 8, Dr. Walter Burnham details such a case. The man was a well-built, healthy German, who had been shot the day before just above the patella, the ball passing through the condyles and out at the popliteal space, dividing the blood-vessels and nerves. There was no hemorrhage of any moment, owing to instant surgical appliances. At the time of operation the pulse was 80, and there were no symptoms of exhaustion or severe shock. An ounce of ether was put upon a napkin placed in a bowl, which was held so as to cover the face without touching it. One or two drachms of ether were added every two or three minutes. In about ten minutes (by guess) he was insensible, but, manifesting some signs of consciousness as the operation proceeded, the bowl was again placed over his nose. It required but a few seconds to induce profound anesthesia. The doctor says, "I again removed the ether from his face, which the surgeon noticed, and impatiently ordered me to renew it. I reapplied the napkin, with a drachm of ether freshly poured upon it. After one or two inspirations the patient ceased to breathe." He was dead. The use of the knife was not finished, and there had been no hemorrhage. (We would comment on this case that time and measure were evidently simply guessed at, and that it is very probable that much more ether was really used than Dr. Burnham thinks.)

DISINFECTANTS.—The Chemical Society of Berlin has published a list of the most approved disinfectants, and the degree of concentration in which to apply them:

Potassiumate of Potash.—One part of the pure salt is dissolved in one hundred parts of water. Where the crude material is used, five to ten parts of it to one hundred of water will suffice. This disinfectant acts upon liquids, and has little effect on solids.

Carbolic Acid Water is obtained by dissolving one part of pure crystallized carbolic acid (which can be rendered fluid by immersion in hot water) in one hundred parts of water. Crude carbolic acid should be taken in double the quantity.

Carbolic Acid Powder is prepared by mixing one hundred parts peat, gypsum, earth, sand, sawdust, or charcoal powder, with one part carbolic acid dissolved in water. Double the quantity of crude acid must be taken.

Carbolic Acid Wash.—Mix one part carbolic acid with one hundred parts milk of lime.

Chloride of Lime.—One part in one hundred of water.

Solution of Metallic Salts.—Better to prepare saturated solutions in water and frequently stir.

Suicidal Mass is composed of one hundred parts of slaked lime, fifteen parts coal tar, and fifteen parts chloride of magnesium dissolved in water.—*Journal of Applied Chemistry*, December, 1870.

GUMMY TUMOR OF THE THIGH MANIFESTING ITSELF FIFTY-FIVE YEARS AFTER THE PRIMARY LESION OF SYPHILIS.—A hale, stout, well-preserved gentleman, seventy-two years of age, consulted Dr. Alfred Fournier (*Revue Médicale Française et Étrangère*, 27 Août, 1870) in April, 1869, on account of a firm, indolent tumor which occupied the subcutaneous connective tissue on the inner side of the middle of the thigh, and was of about two months' standing. Its surface was uneven and largely bosselated, and it projected from four-fifths of an inch to two inches and a half, according to the point of measurement, above the general level of the thigh. It measured nearly six inches in length by four inches in breadth, and presented all the signs and the history of a gummy tumor. The skin was freely movable over it, and preserved its normal appearances, excepting at one point, where it was adherent and on the point of ulceration. Under the exhibition of iodide of potassium in doses which varied from forty-five to seventy-five grains daily, it had completely disappeared at the end of six weeks.

The previous history of the patient was briefly as follows. At the age of seventeen he contracted a chancre, which was followed for some months by secondary phenomena, of which the most prominent were ulceration of the mouth, and a tubercular syphilide. Up to the age of sixty-nine, or for an interval of fifty-two years, he was perfectly free from symptoms, when, in the midst of apparent good health, he was attacked with caries of the lower jaw, which was pronounced to be syphilitic by MM. Ricord, Nélaton, and Demarquay, and which yielded to iodide of potassium. Three years later, or at the age of seventy-two, the gummy tumor of the thigh made its appearance. The primary sore was the only venereal affection that he had ever contracted: so that the syphilitic virus remained dormant in his system for fifty-two years. This is probably the most remarkable example of the late appearance of tertiary accidents on record.

MISCELLANY.

WE find the following in the *London Medical Press and Circular* of September 7, 1870:

"AMERICAN STATUE TO HARVEY.—*Nature* announces that it is proposed to erect a statue of Harvey, the discoverer of the circulation of the blood, in the Central Park, New York, and large subscriptions have been received for that purpose. It is to be of bronze, of colossal proportions, representing 'Harvey at the moment he felt convinced he had made the great discovery that has immortalized his name.' Verily the American sculptors have a pleasant task before them. How does a philosopher usually look under such circumstances?"

THE "CONTAGIOUS DISEASES ACTS."—To the unbiassed seeker after the truth as to the working of these acts, the English medical journals are extremely unsatisfactory. According to one account, the popular mind rebels against the very idea; the registering and the periodical examination of the prostitutes are irksome and demoralizing; virtuous women are continually in danger of insult; and the sole object gained is to make guilty intercourse safer. But another statement is, that the number of public women is less, their behavior more decent, their health improved; and, in fact, one might almost suppose that this particular vice was robbed of all its objectionable features.

SINGULAR DECISION.—In a suit against some of the "peculiar people," in England, for causing the death of a child by neglecting to obtain medical advice for it, an acquittal was ordered by the judge, for the curious reason that the medical witnesses would not swear that the child would certainly have recovered if it had been placed under treatment.

NAVAL STAFF RANK.—Nothing seems to have been done, or to be likely to be done, in the matter of the staff officers of the navy. We cannot but think it curious that the present state of things, so little in accord with the fundamental principles of our governmental system, should maintain itself so firmly. One thing is certain: the matter has been so far agitated, that the best of the young men from whom the naval medical corps should be recruited will decline to enter a service which offers so little pay and so much chance of annoyance and humiliation.

CORONER'S OFFICE.—The coroner, through his deputy, took possession on Wednesday, January 4, of his new office, at the Morgue, corner of Beach and Noble Streets. We understand that the superintendent of the building is to act under the orders of the coroner, subject to the regulations established by law.

WAR NOTES.—We have but few and meagre medical advices from the seat of war, although the English journals seem to have industrious correspondents. The greater part of their published letters are narratives of personal adventure and travel rather than of scientific observation. Indeed, it will be only after the vast mass of facts officially recorded shall have been sorted out and winnowed, and severely scrutinized by scientific eyes, that any valuable lessons will be derivable from the surgery of the Franco-Prussian struggle.

HOSPITAL APPOINTMENT.—On the 9th ult., Dr. Edwin Scholfield, Senior Visiting Accoucheur to the Philadelphia Hospital, resigned his position on account of ill health. The place has been actively sought by a number of candidates, including Drs. Getchell, McArthur, Ingham, G. Pepper, Jenks, Ford, and Hough. At the meeting of the Board of Guardians, January 23, Dr. George Pepper was elected on the second ballot.

DISAGREEMENTS BETWEEN DOCTORS.—A recent writer in the *British Medical Journal* inclines to the belief that differences of opinion are not more common between medical men than between lawyers,—perhaps not so much so. He says, "The analysis of the decisions of Lord Justice Giffard, sitting in appeal cases alone, from January to June, 1870, shows that of forty-one appeals from various courts, the decisions of those courts were affirmed in seventeen cases, reversed in nineteen cases, and varied in five cases. In applying this illustration to the cases of difference of opinion amongst medical experts in courts of justice, it must be remembered that in the great majority of cases to be decided—say ninety per cent. of railway compensation cases—medical opinion is unanimous. And such cases do not come into court. It is only where doubts and difficulties arise that a judicial decision in court is ordinarily asked. The cases of agreement, which are most numerous, are settled out of sight." We certainly think that a doctor, when duty calls him into court, sees in six hours more quarrelling between lawyers over points of difference of opinion than among his brother practitioners in six months.

INGENIOUS.—We have received the circular of an institution for the treatment of nervous diseases, inebriety, etc., backed up by a number of "extracts from letters of distinguished physicians." But on examination we find that these letters, from Drs. Brown, Rockwell, Galt, Kirkbride, and others, were written in answer to invitations to participate in the ceremonies of laying the corner-stone of the New York State Inebriate Asylum at Binghamton, N.Y., in September, 1858. It is, however, naively remarked that "they will apply with equal force to the 'Hospital for Nervous Diseases,' a similar institution." Perhaps it did not occur to the "Medical Director," whose name never had met our eyes before we saw it on his circular, that there might be differences between the two institutions in situation, plan, management, and other points, so that the writers of those letters would not care to have them used indiscriminately for the endorsement of either.

The *Richmond and Louisville Medical Journal* states that the oldest practising physician in America is Dr. Theophilus Clark, of Tinmouth, Vt. He is ninety-eight years of age, has been practising continuously sixty-six years, is hale and hearty, and has no thought of giving up business yet.

DIED AT THEIR POSTS.—It is stated that during the prevalence of yellow fever in Mobile, Ala., last autumn, four

physicians fell victims to the disease: Drs. T. J. Burke, William Toxey, Dabney H. Herndon, and Isaac W. Anderson.

LIFE INSURANCE.—We see it stated that the New York Life Insurance Company has established branch offices in London, Liverpool, and Manchester, and that the *Medical Press and Circular*, commending the enterprise, mentions several features in which the American law as to the life insurance business is superior to that in Great Britain. The statement that no company of this kind has ever failed in the United States, however, is unfortunately no longer true; a company in New Haven having been recently obliged to wind up their affairs.

RUMORED RESIGNATION.—A report is current in the city, and seems worthy of credit, that Dr. Henry H. Smith, Professor of Surgery in the University of Pennsylvania since 1855, intends resigning his chair upon the termination of the present session. We presume that there can be little doubt as to who his successor will be.

REMOVAL.—Dr. Packard has removed from No. 1415 to No. 1928 Spruce St.

MORTALITY OF PHILADELPHIA.—The following statements are condensed from the Health Office Reports:

	For the week ending		
	Jan. 7.	Jan. 14.	Jan. 21.
Diseases of the Brain and Nervous System	34	50	53
Diseases of the Organs of Circulation and Respiration	102	129	130
Diseases of the Abdominal Organs	16	22	20
Zymotic Diseases	30	25	26
Constitutional Diseases	5	7	7
Casualties	6	8	8
Stillborn	17	11	25
Unclassified	44	43	52
Unknown	1	1	2
Totals	255	296	323
Adults	124	162	159
Minors	131	134	164

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM JANUARY 4, 1871, TO JANUARY 17, 1871, INCLUSIVE.

MECHAM, A. F., SURGEON.—By par. 1, S. O. 8, Headquarters Department of the Missouri, January 12, 1871, granted leave of absence for thirty days, on surgeon's certificate of disability, with permission to go beyond the limits of this Department; and by par. 2, same order, relieved from duty at Fort Hays, Kansas.

TILTON, H. R., ASSISTANT-SURGEON.—By S. O. 386, Headquarters of the Army, A. G. O., December 31, 1870, leave of absence extended sixty days.

BREWER, J. W., ASSISTANT-SURGEON.—By S. O. 3, Headquarters Department of the Missouri, January 4, 1871, granted leave of absence for thirty days, on surgeon's certificate of disability, with permission to go beyond the limits of this Department.

DELANV, ALFRED, ASSISTANT-SURGEON.—By par. 2, S. O. 8, Headquarters Department of the Missouri, January 12, 1871, assigned to duty at Fort Hays, Kansas.

HALL, JOHN D., ASSISTANT-SURGEON.—By S. O. 2, Headquarters Military Division of the Pacific, January 4, 1871, granted leave of absence for sixty days, on surgeon's certificate of disability, with permission to go beyond the limits of the Department in which he is serving.

BILL, JOSEPH H., SURGEON.—By par. 30, S. O. 385, War Department, Adjutant-General's Office, December 31, 1870, at his own request, under provisions of act of Congress approved July 15, 1870, sect. 3, honorably discharged the service of the United States.

MARSH, E. J., ASSISTANT-SURGEON.—By par. 28, S. O. 385, War Department, A. G. O., December 31, 1870, par. 3, S. O. 209, c. s., from A. G. O., accepting his resignation, is revoked, and he is, at his own request, under provisions of act of Congress approved July 15, 1870, sect. 3, honorably discharged the service of the United States, to date August 17, 1870.

POPE, BENJAMIN F., ASSISTANT-SURGEON.—By par. 30, S. O. 385, War Department, A. G. O., December 31, 1870, at his own request, under provisions of act of Congress approved July 15, 1870, sect. 3, honorably discharged the service of the United States.